# MANUAL
OR
# INSTRUCTIONS FOR QUARTERMASTERS
SERVING IN THE FIELD

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# MANUAL

OF

# INSTRUCTIONS FOR QUARTERMASTERS

## SERVING IN THE FIELD.

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PREPARED UNDER THE

DIRECTION OF BRIGADIER GENERAL M. I. LUDINGTON,

QUARTERMASTER GENERAL, U. S. ARMY,

BY

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ASSISTANT QUARTERMASTER,

U. S. ARMY.


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# MANUAL OF INSTRUCTIONS,

ESPECIALLY INTENDED

## FOR QUARTERMASTERS SERVING IN THE FIELD.

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### DUTIES OF QUARTERMASTERS.

**1.** The Quartermaster's Department is charged with the duty of providing means of transportation of every character, either under contract or in kind, which may be needed in the movement of troops and material of war. It furnishes all public animals employed in the service of the Army, the forage consumed by them, wagons, and all articles necessary for their use, except the equipment of cavalry and artillery. It furnishes clothing, camp and garrison equipage, barracks, storehouses, and other buildings; constructs and repairs roads, railways, bridges; builds and charters ships, boats, docks, and wharves needed for military purposes, and attends to all matters connected with military operations which are not expressly assigned to some other bureau of the War Department. (A. R., 972.)

**2.** A quartermaster can not be too careful of the property for which he is accountable. If any of it is issued for the official use of an officer or organization, he should obtain a memorandum receipt for the property at the time it is issued. This is necessary for his own protection, and he will find it easier to obtain a receipt then than he will afterwards.

**3.** Quartermasters should hold officers strictly responsible for the property in their charge.

**4.** From the very beginning quartermasters should be strict regarding the use of public property, and they will thereby save themselves much trouble and annoyance.

**5.** Keep the animals well shod, groomed, fed, watered, and salted. Quartermasters should give this their personal attention, for wagon masters and teamsters are apt to be careless in these matters, especially in hot, cold, or disagreeable weather, and after a long, tedious march.

**6.** Watch the hay and grain, and see that the animals get their allowance, or it will be found that the animals' food is being sold or wasted.

**7.** Have the wagons well greased and kept in repair, the harness washed and oiled, the tentage repaired, and by timely requisitions see that the material and tools are on hand to make necessary repairs, so as to keep all articles in a perfectly serviceable condition at all times.

**8.** The quartermaster of a regiment has charge of the public animals, wagons, harness, tentage, fuel, forage, tools, and other supplies received from the Quartermaster's Department. Based on the requisitions of the company commanders, he draws the clothing from the depot quartermaster, and issues it direct to the soldiers on properly approved clothing schedules.

**9.** The regimental quartermaster should be liberal in estimating supplies for and issuing them to the regiment, but at the same time he must be careful not to load the regiment up with a lot of property

which he will not be able to transport, and which the regiment will not need in active operations.

**10.** The depot quartermaster is stationed at or near a camp, or in a city which has good railroad facilities, and where supplies of all kinds are readily purchased.

**11.** His duties at a camp are multitudinous. He should have large and conveniently arranged storehouses; strongly built corrals, with shelter for the animals, feed and water troughs; blacksmith's, wheelwright's, saddler's, and painter's shops; shelters for forage and wagons; large, well ventilated and lighted offices, all convenient to the camp, under charge of the guard, and protected from fire by barrels of water, buckets, force pumps, hose, axes, etc.

**12.** The depot quartermaster receives all supplies sent to the depot, issues all quartermasters' property direct to regiments, brigades, etc., issues all transportation requests and bills of lading, repairs wagons and harness, inspects all forage and fuel, observes carefully the condition and quantities of supplies in the storehouses, makes timely requisitions for replenishing same, besides performing other duties too numerous to mention.

**13.** The depot quartermaster should be fully acquainted with the duties of the Quartermaster's Department. He should be a good business man, and have perfect control of himself under any and all circumstances. His temper will be tried many times daily, and he will have many things to annoy and worry him, but he should be polite and courteous

to everyone at all times, and he will soon find that his example has a beneficial effect.

**14.** If possible, railroad tracks should run to all the storehouses, corrals, and forage yards, and the depot quartermaster should receive from the railroad authorities a list of all cars as soon as they arrive, and the contents of the cars. This information will give the number of car, railroad to which it belongs, date of arrival, and contents, such as ordnance stores, subsistence stores, etc. Have these cars switched at once to the proper storehouses and unloaded, and the check clerk carefully check all packages.

Have the receiving officer sign for the number of boxes, bales, etc., in a book, and note condition of property. When the car contains miscellaneous stores, have it unloaded at once and contents distributed. If there is nothing to indicate contents of car, have the railroad officials open same, and report. Note whether seals on cars are broken. By following this plan congestion of traffic will be prevented.

**15.** The brigade quartermaster is responsible for the quartermasters' property at brigade headquarters, and should be familiar with the quantity and condition of all the quartermasters' supplies in the regiments of his brigade, so that he may act intelligently on all requisitions and other papers that come through his office.

**16.** He should consult and advise the regimental quartermasters, and see that the regiments have all the supplies necessary for field service, and that they are kept in serviceable condition.

**17.** The duties of the division and corps quartermasters are similar to the brigade quartermaster's, although more extended in their operation.

**18.** When a regiment arrives in camp, and is not fully equipped, the quartermaster should at once make a careful requisition for everything he needs, have it approved by his regimental commander, and take it at once to the chief quartermaster of the camp, who, after approving or modifying it, should direct the regimental quartermaster to take it at once to the depot quartermaster.

**19.** After a regiment is nearly fully equipped, requisitions should be forwarded to the chief quartermaster of the camp through regular military channels, but at first, to save delay, requisitions should be taken direct to the chief quartermaster by the regimental quartermaster.

### ACCOUNTABILITY AND RESPONSIBILITY FOR PUBLIC PROPERTY.

**20.** Quarterly returns of quartermasters' supplies will be made in duplicate. One copy, with abstracts (except of articles purchased) and vouchers, will be forwarded to the Quartermaster General within twenty days after the expiration of the quarter to which it pertains, the other retained by the officer. The abstract of articles purchased will be rendered monthly and forwarded with money accounts. (A. R., 1224.)

**21.** Should an officer or agent of the Government charged with public property fail to render the prescribed returns thereof within a reasonable time, a settlement of his accounts will be made by the

proper bureau of the War Department, and the money value of the property with which he is charged will be reported against him for stoppage. (A. R., 699.)

**22.** Accountability and responsibility devolve upon any person to whom public property is intrusted and who is required to make returns therefor. Responsibility without accountability devolves upon one to whom such property is intrusted but who is not required to make returns therefor. Thus, with respect to quartermasters' supplies intrusted to a company or detachment commander, responsibility but not accountability attaches. (A. R., 657.)

**23.** A transfer of public property involves a change of possession and accountability. The transferring officer will furnish the receiving officer with invoices, in duplicate, accurately enumerating the property, and the latter will return duplicate receipts.

The transaction will appear on the property returns rendered by each. (A. R., 665.)

**24.** If an officer to whom public property has been transferred refuses to receipt for it, the invoicing officer will report the facts to the commanding officer of the former for action. Copies of all papers relating to the transaction will be filed with his returns. (A. R., 667.)

**25.** Upon the receipt of public property by an officer he will make careful examination to ascertain its quality and condition, but will not break original packages until issues are to be made, unless he has reason to believe the contents defective. Should he discover defect or shortage, he will

apply for a board of survey to determine it and fix the responsibility. Should he consider the property unfit for use, he will submit inventories in triplicate and request the action of an inspector. The same rule will be observed in regard to packages when first opened for issue, and for property damaged or missing while in store. (A. R., 668.)

**26.** When packages of supplies are opened for the first time, whether because of apparent defect or for issue, the officer responsible or some other commissioned officer will be present and verify the contents by actual weight, count, or measurement, as circumstances may require, and in case of deficiency or damage will make a written report of the facts to the post commander. If only the officer responsible be present and make the report, he will secure the sworn statements in writing of one or more civilians or enlisted men regarding the condition of the property when examined.

Should a board of survey be convened, the post commander will refer to it the report made by the examining officer, together with the sworn statements. (A. R., 669.)

**27.** The keys of storerooms or chests will not be intrusted to enlisted men or civilians without great vigilance on the part of the accountable officer and a resort to every reasonable precaution, including frequent personal inspections, to prevent loss or damage. (A. R., 674.)

**28.** Accountability for public property will not be transferred to enlisted men, except to sergeants of the post noncommissioned staff at ungarrisoned posts and sergeants of the Signal Corps. (A. R., 694.)

### ACCOUNTABILITY FOR PUBLIC FUNDS, CHECK BOOKS, TRANSFER OF MONEY, CERTIFICATES OF DEPOSIT.

**29.** Disbursing officers who render accounts which eventually pass to the Treasury Department for settlement are required to prepare their accounts, with abstracts and vouchers complete, and deposit them in the post office, addressed to the chief of the bureau of the War Department to which they pertain, on or before the 10th day of each month. Irregularities in the mail service or want of blank forms will not excuse a failure to comply with this paragraph.

[NOTE.—Time for rendition of money accounts by officers extended to 20 days, to close of the calendar year ending December 31, 1900. See G. O. No. 211, A. G. O., December 29, 1899.]

When vouchers are not sent with the account to which they belong, but are subsequently rendered, suitable explanation will be made. (A. R., 627.)

Money accounts forwarded to the Quartermaster General will be accompanied by letters of transmittal, enumerating papers inclosed and stating the number of inclosures.

**30.** No contract or purchase on behalf of the United States shall be made unless the same is authorized by law, or is under an appropriation adequate to its fulfillment, except for clothing, subsistence, forage, fuel, quarters, or transportation, which, however, shall not exceed the necessities of the current year. (R. S., 3732.)

No officer of the United States shall accept voluntary service for the Government or employ personal service in excess of that authorized by law,

except in case of emergency involving loss of life or destruction of property. (Act approved May 1, 1884; A. R., 515.)

**31.** The use of moneys for purposes other than those for which appropriated, liquidation of liabilities of one fiscal year by use of moneys appropriated for another, and expenditures in a fiscal year of any sum in excess of appropriations for that year, or involving the Government in any contract for future payment of money in excess of appropriations, except as authorized by paragraph 515, are prohibited. (A. R., 579.)

**32.** When an officer disburses money in different capacities his deposits and accounts will be kept distinct, according to the bureaus to which they pertain. (A. R., 583.)

**33.** Officers serving in and disbursing funds pertaining to more than one staff department, and officers assigned to duty in any of the staff departments, will, in issuing checks, confine the designation of their official capacity to their rank and the particular staff department on account of which the checks are drawn. (Cir. 6, A. G. O., 1900.)

**34.** Public moneys subject to disbursement coming into the hands of an officer from any source must be promptly placed by him to his credit with the Treasurer or an assistant treasurer of the United States, or a duly designated depository, or transferred to a disbursing officer of that branch of the public service to which the money pertains, in either of which cases a receipt will be obtained.

Exceptions to this rule are allowed where a disbursing officer has been specially authorized by the

Secretary of War to keep in his personal possession, at his own risk, the public moneys which have been intrusted to him for disbursement, and money in hand may be disbursed at once without being placed in depositories if payments are due. (A. R., 584.)

**35.** No officer disbursing money for the military service, or directing the disbursement thereof, shall be concerned individually, directly or indirectly, in the purchase or sale of any article intended for, used by, or pertaining to the department of the public service in which he is engaged. (A. R., 587.)

**36.** If any disbursing officer shall bet at cards or any game of hazard, his commanding officer will suspend his functions, require him to turn over all public funds in his keeping, and will immediately report the case to the proper bureau of the War Department.

He will also report the case to the department commander, who will at once convene a court-martial for the trial of the officer. (A. R., 590.)

**37.** Every disbursing officer, in opening his first account and before issuing any checks, will furnish the depository on which the checks are to be drawn with his official signature, duly verified by some officer whose signature is known to the depository. (A. R., 591.)

**38.** For every Treasury draft received by a depository to be placed to the official credit of a disbursing officer, and for every deposit of funds made by the officer to his official credit, subject to payment of his checks, a receipt, numbered in serial order, and giving the place and date of issue, will be furnished him by the depositary, setting forth the

character of the funds—i. e., whether coin or currency. If the credit is made by a disbursing officer's check transferring funds, the essential items of the check will be enumerated, and if by a Treasury draft, the warrant number. The title of the officer will be expressed, and the title of the account will also show for what branch of the public service it is kept. The receipt, called "a disbursing officer's receipt," will be retained by the officer in whose favor it is made. (A. R., 592.)

**39.** A disbursing officer may draw his check in favor of himself "or bearer" for making payments of amounts not exceeding $20, for making payments at a distance from a depository, or for making payments of fixed salaries due at a certain period, if the check be not drawn more than two days before the salaries become due. In all other cases checks will be made payable to "order" or "bearer," and will be drawn only in favor of the persons, firms, or corporations, by name, to whom the payments are to be made. (A. R., 596.)

**40.** A disbursing officer is not authorized to draw checks in his own favor or to bearer (par. 596, A. R.) for making payments of amounts not exceeding $20, unless such checks bear indorsed upon them the names of the persons to whom the amounts drawn are to be paid, or accompanied by a list or schedule, made a part of the checks, containing the same information. (Decision Asst. Sec. War, Mar. 18, 1899—213731, A. G. O.; Cir. 18, A. G. O., Mar. 29, 1899.)

**41.** Each check of a disbursing officer must state on its face the object of the expenditure, and in

case of payment to officers or enlisted men the period covered by the payment. Such statements must be brief, but clear, as, for instance, "pay," "pay roll," or "payment of troops," adding the post or station; "purchase of subsistence" or of other supplies, naming them; "on contract for construction," mentioning the fortification or other public work for which the payment is made; "payments under $20," etc. Payment is refused on all checks where this requirement is disregarded, and report of the fact made to the Treasury. (A. R., 597.)

**42.** In addition to the instructions contained in paragraphs 596 and 597 of the Regulations and Circular No. 18, September 2, 1897, from A. G. O., relative to the issue of checks, it is required that hereafter each check drawn by a disbursing officer shall have placed on it the address of the officer drawing it. (G. O. 139, A. G. O., Sept. 7, 1898.)

**43.** Disbursing officers will not pay an account until it is due.

In cases of contracts for the performance of service or delivery of articles, payment will not exceed the value of services rendered or articles actually delivered. (A. R., 598.)

**44.** Official check books are issued by the Treasurer and assistant treasurers of the United States direct to disbursing officers who have public money on deposit with them. Official check books on national-bank depositories are furnished by chiefs of bureau. Rules for issue, transfer, etc., of these check books accompany each book. (A. R., 605 and 606.)

**45.** The chief of bureau issuing a check book on a national-bank depository will keep a complete

record of its size, its character, the serial number of its checks, and when and to whom issued.

When an officer transfers such book or any of its unused checks, he will immediately advise the chief of bureau by whom it was issued of the serial numbers, inclusive, so transferred, forwarding a receipt therefor, that the necessary change in the record may be made.

When an officer ceases to act as a disbursing officer or agent, he should transfer all unused checks to his successor, as above provided, or, if there be no successor, return them to the chief of bureau by whom issued.

Should any officer make an erasure or alteration of any of his checks, however slight, he will certify to the correctness of such erasure or alteration on the upper margin of such check.

Mutilated or spoiled official checks upon the United States Treasurer or Assistant Treasurer will be forwarded promptly to the depository to which they pertain, but mutilated or spoiled checks upon a national-bank depository will be forwarded promptly for preservation and future reference to the chief of bureau by whom issued, who will acknowledge the receipt of such checks. In either case a record of the dates of both cancellation and transmission will be entered on the stub. (Cir. 51, A. G. O., 1899.)

**46.** Public funds will, in general, be transferred as follows: The officer making the transfer will draw his check directing the depositary to place a stated amount to the official credit of the officer named therein. The check will be sent to the

depositary and not to the officer in whose favor it is drawn. If it is necessary that the officer to whom the funds are transferred shall receive them without delay, the transferring officer may draw his check and transmit the same direct to the officer requiring them. In either case invoices of the funds transferred are sent to the receiving officer. (A. R., 594.)

**47.** The transfer of public funds from the credit of one United States disbursing officer to another by means of a United States disbursing officer's check (A. R., 594) is permissible *only* on the books of the *same* office or bank. Transfers of funds pertaining to the military service from one office or bank to another office or bank should be made only by the Secretary of the Treasury, upon the recommendation of the Secretary of War, and then only to like credit—not from one disbursing officer to another.

A balance of appropriation to the credit of a disbursing officer which is no longer needed for disbursement by him, but which it is desired shall be placed to the credit of another officer in a distant depository, should be deposited by the first-mentioned officer to the credit of the Treasurer of the United States as a repayment to the appropriation, and a requisition should be made by the Secretary of War for the placing by the Treasury Department of an equivalent amount to the credit of the other officer in the distant depository. (Ruling Sec. Treas., April 11 and 18, 1898—75138, A. G. O.; Cir. 10, A. G. O., May 3, 1898.)

**48.** Public moneys are transferred to the general Treasury by being deposited to the "credit of the

Treasurer of the United States," either at the Treasurer's office, or at the office of one of the assistant treasurers, or at one of the designated depositories. All "miscellaneous receipts on account of proceeds of Government property" (par. 615) must be deposited, also, when required by chiefs of bureaus to which the funds pertain, the public moneys in the possession of or to the credit of disbursing officers or others.

For each deposit made a "certificate of deposit" in duplicate will be given, showing the full name, rank, regiment, or corps of the depositor, and to what appropriation or fund the amount belongs, the depositor giving the necessary information when making the deposit. (A. R., 608.)

**49.** The "originals" of all certificates of deposit are required by law to be forwarded by the depositaries direct to the Secretary of the Treasury; the "duplicates" are filed by the depositing officers with their retained papers. Immediately upon making a deposit to the credit of the Treasurer of the United States the depositing officer will notify the proper chief of bureau of the fact, stating the number of the certificate of deposit, the name of the depository, the date of the deposit, the amount, the appropriation to which the money pertains, and whether the amount arose from proceeds of sales or is a repayment of an unexpended balance. If the deposit is on account of the indebtedness of any person other than the depositing officer, the source from which the money was derived and the object of the payment will be distinctly stated and reference made to the vouchers, if any, to which the deposit pertains. (G. O. 49, A. G. O., 1900.)

**50.** The number, date, and amount of the certificate of deposit, together with the specific appropriation, if named, will be noted on the account current upon which the depositor desires to be credited with the money deposited. Certificates of deposit will not be filed with accounts current. Officers will state in such accounts dates of deposits and name and location of depository. (A. R., 612.)

**51.** Moneys received for stores, materials, or supplies (except subsistence stores) sold to officers, enlisted men, or exploring or surveying expeditions authorized by law will be deposited to the credit of the Treasurer of the United States, and respectively revert to the appropriation out of which originally expended. (A. R., 614.)

**52.** The proceeds of sales of all public property, the disposition of which is not provided for by the preceding paragraph, after the expenses of sale have been deducted, will be deposited to the credit of the Treasurer of the United States as "miscellaneous receipts on account of proceeds of Government property," for which certificates of deposit will issue, showing the name, rank, regiment, or corps of the depositor, the nature of the deposit, the kind of property, and the bureau to which it pertained. (A. R., 615.)

**53.** All public funds on hand at the close of a fiscal year, except those required to pay outstanding liabilities incurred during such year (a schedule of which will, if possible, accompany the last account current for the year) and "no limit" appropriations, will be deposited to the credit of the Treasurer of the United States and the disbursing officer's

account closed by a credit for such deposit. (A. R., 623.) Public funds will not be transferred from one appropriation for the use of another, by borrowing or otherwise. (A. R., 623 and 595.)

**54.** The Auditor for the War Department has advised this Department that the present practice of the accounting officer to settle money accounts of disbursing officers of the Quartermaster's Department without regard to their bonds is to be discontinued.

By direction of the Secretary of War, every bonded officer of the Quartermaster's Department who hereafter files a new bond will close his account under his former bond and open a new account under his new bond; this to enable the Treasury Department to definitely fix the responsibility of each bond.

Hereafter on each requisition drawn for public funds to be placed to the credit of such officers the chief of bureau will cause to be entered in the space provided for that purpose the date of the bond under which the money is to be handled. (Cir. 48, A. G. O., 1899.)

INFORMATION CONCERNING PROPERTY PAPERS.

**55.** All property purchased with funds appropriated by Congress for carrying on the operations of the Quartermaster's Department, and all property supplied for the use of the Army through that Department, will be denominated "quartermasters' supplies," and returns for the same will be rendered to the Quartermaster General quarterly and when the accountable officer is relieved from duty. (A. R., 1221.)

**56.** Requisitions for stationery are made on Form 41, and the allowance is stated in paragraphs 1023 to 1027, Army Regulations.

**57.** Requisitions for fuel, forage, and straw are made on Form 38, and the allowance is stated in paragraphs 1006, 1041, and 1049, Army Regulations.

**58.** Requisitions for horse medicines are made on Form 51, and the allowance is stated in G. O. 64, A. G. O., 1884. In this connection see paragraph 1039, Army Regulations.

**59.** Consolidated estimates of clothing and equipage are made on Form 57, and for the allowance of same see the last published clothing order from the office of the Adjutant General.

Special requisitions for clothing are made on Form 53½.

**60.** Requisitions for quartermasters' supplies other than above stores are made on Form 48.

**61.** A return of quartermasters' supplies, Form 27, is a consolidated statement of all property for which the quartermaster was accountable during the quarter, and shows the balance on hand at end of previous quarter, the property received since, the property that he has issued, expended, sold, lost, or transferred, and the balance of property for which he is accountable.

**62.** On all returns, abstracts, requisitions, etc., arrange the articles alphabetically in each class and as they come on the return. For proper classification of articles see "notes" on Form 27.

**63.** The following abstracts are subvouchers to the return of property:

Abstract "D," Form 31. This shows the articles purchased during the quarter, whether paid for or not, date of purchase, from whom purchased, and cost. This abstract is not forwarded with the property return, but is rendered with the account current for the month to which it pertains.

**64.** Abstract "E," Form 33. This shows the articles invoiced to and received by the quartermaster, and name of invoicing officer.

**65.** Abstract "F," Form 35. This shows the articles manufactured or found by the quartermaster to be in excess of his accountability.

**66.** Abstract "G," Form 36. This is used when the quartermaster is accountable for fuel, forage, straw, illuminating oil, etc., which have been purchased by or invoiced to him, and shows the authorized expenditures and sales of these articles.

**67.** Abstract "H," Form 40. This shows the stationery issued, and to whom, and is used when an officer, like a depot quartermaster, is accountable on his return for stationery. The last line is used for expenditures by the quartermaster himself, and need not be supported by a voucher.

**68.** Abstract "I," Form 42. This shows the articles lost, destroyed, sold, or expended. The articles expended do not include stationery or horse medicines, for which separate abstracts are provided.

**69.** Abstract "K," Form 46. This shows the articles transferred to other officers, and the name of the receipting officer.

**70.** Abstract "L," Form 50. This shows the articles of horse medicines and dressings issued on

regular requisitions, and such articles as have been expended by the quartermaster.

**71.** Abstract "M," Form 65. This shows the list of clothing issued to the enlisted men, and should be properly signed at end of each line by the officer who witnessed the issue and the officer commanding company or detachment. It should also be signed by the quartermaster and approved by the commanding officer.

**72.** To prepare these abstracts, get together the proper vouchers, make an alphabetical list in each class, and enter on abstract, leaving a few spaces between classes.

Enter each voucher, giving date, name of organization or officer, and articles.

Foot up the totals and carry same to proper printed line on return, and brief all papers.

Abstract "D" requires no vouchers; it is forwarded with the account current, and from the press copy of this abstract, or from the duplicate copy, you can get the data for the return.

Abstract "E" has for a voucher Form 34—Invoice of supplies transferred from officers.

Abstract "F" has no vouchers.

Abstract "G" may have any or all of the following vouchers:

Form 37—Sales to officers of fuel, forage, straw, etc.

Form 38—Requisitions for fuel, forage, straw, etc.

Form 39—Statement of forage and straw issued to and consumed by public animals for which the quartermaster may be accountable.

Form 49—Statement of purchases by officers.

Abstract "H" has for vouchers Form 41—Requisition for stationery.

Abstract "I" may have any or all of the following vouchers:

Form 43—Monthly list of quartermasters' supplies expended.
Form 44—List of articles lost or destroyed.
Form 45—Account of sales at auction.
Form 49—Statement of purchases by officers.
Form 54—Sales of clothing to officers.
Form 56—Statement of charges on muster and pay rolls of enlisted men.

Abstract "K" has for voucher Form 47—Receipt for quartermasters' supplies.

Abstract "L" has for voucher Form 51—Requisition for horse medicines and dressings.

Abstract "M" has no vouchers.

The above are all the vouchers connected with a return of property. To complete the return, attach the certificate of inventory, Form 55.

### INFORMATION CONCERNING MONEY PAPERS.

**73.** An account current, Form 6, is a report of all the public funds for which the quartermaster has been accountable during the month, and shows the balance on hand at end of previous month under the various appropriations, the money received or deposited to his credit during current month and from whom received, the money expended on Abstracts "A" and "B," transferred on Abstract "C," or deposited to credit of United States Treasurer (the number of the certificate of

deposit and name of depository being given), and the balance of funds on hand, and where deposited.

The following abstracts are subvouchers to the account current:

Abstract "A," Form 8, shows the money expended under the several appropriations, to whom paid, the date, and the total amount expended.

Abstract "B," Form 11, shows all money expended, except for articles purchased.

Abstract "C," Form 25, shows the amount of money transferred to other quartermasters, their names, and date of transfer.

To complete these abstracts, foot up the totals, carry to proper lines on account current, and brief abstracts.

Abstract "A" has Form 10 as a subvoucher. This shows the articles purchased, cost of same, name and address of person from whom purchased, authority for purchase, whether articles were purchased under oral agreement or written contract, whether proposals were invited under advertisement, or whether articles were purchased in the manner customary among business men.

In the case of fuel, forage, and straw, a certificate of inspection is required, to the effect that the articles were of good quality and in all respects equal to what was required by the contract. A copy of the authority must be filed with Form 10, also a copy of the public notice inviting bids, copy of letter accepting proposal, and one copy of the accepted proposal.

Abstract "B" may have any or all of the following forms as subvouchers:

Form 12—Receipt roll.

Form 13—Payment for services not entered on the receipt rolls, for rent of buildings, and for other miscellaneous disbursements.

Form 14—Payment for telegrams.

Forms 15, 18, 19, 20, and 21—Payment for passenger and freight transportation.

Form 16—Payment for tickets furnished.

Form 22—Payment of reward for apprehending deserters.

Forms 23 and 24—Payment for advertising and job printing, when authorized and approved by the Secretary of War.

Form 101—Receipt roll of discharged general prisoners.

Certain quartermasters are designated to settle and pay for passenger and freight transportation and telegrams, so that the ordinary quartermaster would have occasion to use only Forms 10, 12, 13, 22, 23, 24, and 101.

**74.** The following money papers are used as occasion demands:

Form 7—Consolidated statement of funds received from sales to officers.

Form 26—Invoice of, or receipt for, funds.

Form 28—Estimate of funds required.

Form 29—Statement of outstanding debts.

Form 30—Receipt to officers for money paid quartermaster for fuel, forage, straw, etc.

Study carefully the printed notes on all quartermaster forms, and follow them strictly.

**75.** Accounts current will be made in duplicate. One copy, accompanied by abstracts and vouchers, will be forwarded to the chief of the bureau and the other retained by the officer. The forms of accounts current and abstracts furnished by the chief of the bureau in which the officer is serving will be used. (A. R., 626.)

**76.** Original vouchers will, if possible, accompany the accounts. Copies will not be accepted unless duly certified and accompanied by satisfactory evidence of the loss or destruction of the originals or that their retention is indispensable to the performance of duty by an officer. (A. R., 628.)

**77.** The fiscal year ends on June 30. The quarters of the fiscal year are as follows: First quarter, July 1 to September 30; second, October 1 to December 31; third, January 1 to March 31; fourth, April 1 to June 30. (A. R., 617.)

**78.** Accounts current, abstracts, and vouchers, including transfers and refundments, will have noted, in red ink, on the face and also in the brief on the back the fiscal year to which the funds pertain. (A. R., 619.)

**79.** No account current, except in the Pay Department, will contain accounts of different years, and no item will be entered thereon unless it pertains to the fiscal year to which the account belongs. (A. R., 620.)

**80.** When an article purchased is not named in the appropriation act, the purpose for which it is intended determines the appropriation from which payment is made. (A. R., 622.)

**81.** Balances retained after the close of the fiscal year for the purpose of paying outstanding liabilities will be carried to a "supplemental account current" for the fiscal year to which the funds pertain. (A. R., 624.)

**82.** With the accounts will be forwarded all orders of commanding officers and all other papers upon which the officer accountable relies to relieve himself from responsibility. (A. R., 629.)

**83.** A voucher for a purchase, or for services not personal, must have expressed on its face, immediately below the statement of the account, the mode of purchase or engagement, using therefor one of the following notations:

1. Under contract dated ———, 18—.
2. Under public notice dated ———, 18—.
3. Under oral agreement, without advertising. (A. R., 636.)

REPORTS OF PURCHASES.

An officer of the Quartermaster's Department who makes a purchase of supplies, or an engagement of services not personal, after public notice of less than ten days, or who makes a purchase of supplies or engagement of services under paragraph 566, will transmit with his monthly money accounts, to the head of the bureau to which the matter pertains, a report setting forth in detail the quantity, price, name of seller, etc., of the supplies so purchased, or the nature of the services so engaged, and the reasons for the mode adopted in each case. The head of the bureau will submit these reports to the Secretary of War. (A. R. 569.)

**84.** The giving or taking of receipts in blank for public money is prohibited, except the receipts to vouchers for publishing advertisements, which will be receipted prior to audit. (A. R., 637, amended by G. O. 173, A. G. O., series 1898.)

**85.** A voucher for funds disbursed will, before being signed by a public creditor, be made out in full, with the place of payment and the name, rank, regiment or corps of the paying officer entered in the receipt, and the exact amount of money written out in words in the receipt. When vouchers are sent by mail for signature, the date in the receipt will be left blank, and the check in payment will not be drawn until the vouchers are returned, properly signed, when the date of the check will be added to the receipt. (A. R., 638.)

**86.** Invoices of and receipts for funds transferred will state place and date of transfer, the name, rank, regiment or corps of the officer from whom the money is received, the kind of funds transferred, and the amount transferred under each head of appropriation. If the transfer is for the correction of errors, whether arising upon the settlement of accounts or otherwise, the facts will be noted in detail on both invoice and receipt. The receiving officer or agent will indorse upon the invoice the exact date of the receipt given by him and will file it with the account current on which he acknowledges receipt of the funds. Any discrepancy as to the appropriation, fiscal year, or amount which may exist between the invoice and receipt when the latter is properly made out will be noted and explained on both invoice and receipt by the

officer or agent receiving and receipting for the funds. (A. R., 639.)

**87.** Vouchers for payment made and invoices and receipts for money transferred will have noted upon them the number, date, and amount of checks given and the depository on which drawn. If payment is made by currency in part or in whole, the facts will be stated. (A. R., 640.)

**88.** A receipt to a voucher which has been made out in favor of a firm by name must be signed in the firm name by one of the partners known by the disbursing officer to be a member of the firm, when the disbursing officer has no notice of any arrangement among the partners that such member has no authority to bind the firm. The receipt should be signed in the firm name by the partner, who should append his own signature as "one of the firm." A receipt signed for a firm or individual by a clerk or other person will not be accepted. (A. R., 641.)

**89.** Vouchers must be stated in the name of the corporation, company, firm, or person rendering the service or furnishing the articles for which payment is made. (G. O. 37, A. G. O., Aug. 13, 1896.)

**90.** Payments in currency or by check to bearer will not be made to holders of powers of attorney or of instruments operating as transfers or assignments.

If payment in currency or by check to bearer is made to an incorporated or unincorporated company, the money or check must be delivered to and the voucher receipted by a duly authorized officer or agent of the company; the receipt must be signed with the company name, followed by the autograph

signature of the officer, with his title, or of the agent to whom the money or check was delivered, and the receipted voucher will be accompanied by evidence showing his authority. This evidence will consist of extracts from the articles of incorporation or association; the by-laws, or the minutes of the board of directors, duly certified by the custodian of such records (under the company seal, if there be one), showing that the signer is properly vested with authority to receive and receipt for money due the company.

If payment in currency or by check to bearer is made to an individual or a copartnership doing business under a company title, the receipt must be signed with the company name, followed by the autograph signature of the individual proprietor or of one of the members of the firm, with the words "proprietor" or "one of the proprietors" appended thereto.

If payment in currency or by check to bearer is made to a copartnership doing business as such, the receipt must be signed with the usual firm signature by one of the members of the firm, who will be required to append his own signature as "one of the firm."

If payment in currency or by check to bearer is made to an individual creditor, the receipt must be signed by him in person. (G. O. 37, A. G. O., Aug. 13, 1896, amending A. R., 642.)

**91.** If payment is made by check to order of any company (incorporated or unincorporated) or firm or individual by name, and the fact that the check has been so drawn is stated on the voucher, giving its number, date, amount, and United States depository on which drawn, the receipt to the voucher may

be signed by an officer, attorney, or agent of the company, or by an attorney or agent of the firm or individual, stating the capacity in which he signs, without filing with the voucher evidence of his authority to sign. The disbursing officer in all such cases will deliver the check to such person only as he is satisfied is authorized by the principal to receipt the voucher and receive the check. (G. O. 37, A. G. O., Aug. 13, 1896, amending A. R., 643.)

**92.** Receipts for small sums for occasional service paid to corporations, such as railroad, telegraph, turnpike, transfer, express, steamboat, hotel, newspaper, and ice companies, may be signed by the local agent in charge of the business of the company at the place where the service is rendered, or where it begins or terminates, and the certificate of the officer making payment that the person to whom payment was thus made was then the local agent of the company in charge of its business at the place designated will be sufficient evidence of the agent's authority to receive and receipt for the money paid. (A. R., 644.)

**93.** The signature to the receipt and the name of the person or business firm as entered at the head of an account must be literally alike. (A. R., 646.)

**94.** When a signature is not written by the hand of the party it must be witnessed, and by a commissioned officer when practicable. (A. R., 647.)

**95.** When applicable, the following rules for the computation of time in payment for services will be observed:

1. For any full calendar month's service, at a stipulated monthly rate of compensation, payment

will be made at such stipulated rate, without regard to the number of days in that month.

2. When service commences on an intermediate day of the month, thirty days will be assumed as the length of the month, whatever be the number of days therein.

3. When the service terminates on an intermediate day of the month, the actual number of days during which service was rendered in that calendar month will be allowed.

4. When the service embraces two or more months or parts of months, but one fraction will be made, thus: From September 21 to November 25, inclusive, will be calculated: September 21 to October 20, inclusive, one month; from October 21 to November 20, inclusive, one month; from November 21 to 25, inclusive, five days—making the time allowed two months and five days.

5. When two fractions of months occur and both are less than a whole month, as from August 21 to September 10, the time will be determined thus: August 21 to 30, inclusive (ignoring the 31st), ten days; from September 1 to 10, inclusive, ten days—making the time allowed twenty days.

6. Service commencing in February will be calculated as though the month contained thirty days, thus: From February 21 to 28 (or 29), inclusive, ten days. When the service commences on the 28th day of that month, three days will be allowed, and if on the 29th, two days.

7. If service commences on the 31st day of any month, payment will not be made for that day.

8. For commutation of subsistence and for services of persons employed at a per diem rate, payment will be made for the actual number of days.

9. When services are rendered from one given date to another, the account will state clearly whether both dates are included.

10. In computing the wages of persons employed at a per diem allowance, the day on which service begins and the day on which it ends will be allowed in the computation. (A. R., 651.)

**96.** Disbursing officers will not settle with heirs, executors, or administrators except by authority of the proper bureau of the War Department, and upon accounts that have been duly audited and certified by the proper accounting officers of the Treasury. (A. R., 652.)

**97.** An officer will have credit for an expenditure of money made in obedience to the order of his commanding officer. Every order issued by any military authority which may cause an expenditure of money in a staff department will be given in writing. One copy thereof will be forwarded by the officer receiving it to the head of his department, and the other will be filed by the disbursing officer with his voucher for the disbursement. If the expenditure be disallowed it will be charged to the officer who ordered it. (A. R., 653.)

**98.** If a payment made on the certificate of an officer as to the facts is afterwards disallowed for error of fact in the certificate, it will pass to the credit of the disbursing officer and be charged to the officer who gave the certificate; but the disbursing officer can not protect himself in an erroneous payment made without due care by charging lack of care against the officer who gave the certificate. (A. R., 654.)

**99.** When an officer is relieved from duty in a staff department at any station he will certify outstanding debts, if any, to his successor, and transmit a list of the same to the head of the proper bureau. Unless otherwise ordered, he will turn over to his successor the public money, property, books, and papers pertaining to the service from which he is relieved. (A. R., 630.)

**100.** When an officer ceases to act as a disbursing officer, or closes his account on change of station, he will submit to the officer to whom the inspection of his accounts has been assigned a statement of his money accounts from date of last inspection to and including the closing of his accounts, with a list of outstanding checks. If an inspection be impracticable, the statement will be forwarded to the Inspector General of the Army. (G. O. 33, A. G. O., 1900.)

**101.** Every voucher in support of a payment for supplies or for services, whether it be made pursuant to a formally prepared contract, an accepted bid, or a purchase without advertising, will be made out in favor of the creditor, giving his address, and must state (if for supplies furnished) the date of the purchase, the quantity and price of each article, and the amount; or (if for services) the character of the services, the date or dates on which rendered, and the amount. Where a purchase under an accepted bid, after public notice, is made in the Quartermaster's or Subsistence Department, the voucher, besides being subject to the foregoing requirements, will be accompanied by a copy of the public notice, the accepted bid, and a copy of the

letter accepting the bid, and must contain a certificate that the award was made to the lowest responsible bidder for the best and most suitable articles, and that the needs of the service required the purchase to be made in the manner indicated by the public notice. Where papers relating to two or more vouchers are required to accompany accounts, they must be filed with the first voucher paid, and reference thereto made on the other vouchers. A voucher for services by the day or month must state the nature of the service, the inclusive dates of service, the time for which payment is made, the rate of pay, and the amount, and the receipt of a creditor to a voucher for supplies furnished or services rendered must contain the words "which I certify to be correct."

All vouchers, when practicable, will be rendered in the English language, but if rendered in a foreign language, a translation of the same must accompany the voucher. (A. R. 633, as amended by G. O. 179, A. G. O., 1898, and G. O. 75, A. G. O., 1900.)

**102.** The Quartermaster General desires to impress upon the officers of the Quartermaster's Department the fact that the proper place for the funds of the Government is in the Treasury until such times as they are required for payment of the creditors of the United States, and with a view to avoiding the accumulation of idle balances in the hands of disbursing officers, it is hereby ordered that estimates of funds shall hereafter, unless otherwise authorized, be made for only such sums as it is believed will cover payments properly due in the month for which the estimate is made.

Estimates should be made to show in detail the amounts required to cover all authorized expenditures, and the date of authority and the bookmark for each item should be clearly stated.

Where large constructions, repairs, etc., have been or may be authorized, the completion of which will require several months, only such funds should be called for at one time as will cover disbursements on that account for one month.

If funds in excess of requirements have been previously called for and supplied, care should be taken to enter all such available balances in the proper column in the "recapitulation" and deduct them.

The practice followed by some officers of calling immediately for funds to cover authorizations where the making of contracts is involved should be discontinued. Under such a system funds are placed to the credit of an officer long before actually required for disbursement, and where the estimated cost exceeds the contract price, more money is obtained than is needed. As a rule, funds will in such cases be obtained in ample time if estimate is made after the contract price is known.

It is observed that the use of the telegraph, oftentimes rendered necessary during actual hostilities, still continues to quite an extent in reporting the needs for funds, and the Quartermaster General believes that the time has come when resort to the telegraph should seldom be necessary and when officers of, and those serving in, this Department should provide themselves with funds by submitting detailed estimates in the form prescribed in the "Quartermaster's Manual."

Corps and department quartermasters making estimates of funds direct upon the Quartermaster General should forward their consolidated estimates soon enough to admit of action by the War Department and the Treasury (requiring usually about two weeks) and the placing of funds to their credit in the depository early in the month for which required for disbursement or transfer to their subordinates. Division, brigade, and other estimates not required to be forwarded to the Quartermaster General should be placed in the hands of corps and department quartermasters in time, so that those officers may include the amounts in their consolidated estimates referred to above.

It should be borne in mind that much time and labor will be saved in the filling of estimate of funds if, in every case, reference be made on such estimate to date and source of authority, and the bookmark be clearly stated.

The lack of knowledge as to the appropriations to which services and purchases properly pertain, so apparent in the imperfect estimates of funds and in the money accounts being received in this office, should, and may readily, be remedied to a great extent if the quartermasters and their clerks will familiarize themselves with the language of the appropriation acts, published in General Orders from the Office of the Adjutant General of the Army. (Cirs., Q. M. G. O., Sept. 29, 1891, and Nov. 10, 1898.)

### APPROPRIATIONS MADE FOR EXPENSES OF THE QUARTERMASTER'S DEPARTMENT.

**103.** To enable quartermasters to determine what appropriation should be used for paying for services and material, the following extract from the

act of Congress approved March 15, 1898, is given. It states the various purposes to which the several appropriations are to be applied:

REGULAR SUPPLIES.

**104.** Regular supplies of the Quartermaster's Department, including their care and protection, consisting of stoves and heating apparatus required for heating offices, hospitals, barracks and quarters, and recruiting stations; also ranges and stoves, and appliances for cooking and serving food, and repair and maintenance of such heating and cooking appliances; of fuel and lights for enlisted men, including recruits, guards, hospitals, storehouses, and offices, and for sale to officers; for post bakeries; for the necessary furniture, text-books, paper, and equipment for the post schools and libraries; for the tableware and mess furniture for kitchens and mess halls, each and all for the enlisted men, including recruits; of forage in kind for the horses, mules, and oxen of the Quartermaster's Department at the several posts and stations and with the armies in the field, and for the horses of the several regiments of cavalry, the batteries of artillery, and such companies of infantry and scouts as may be mounted, and for the authorized number of officers' horses, including bedding for the animals; of straw for soldiers' bedding, and of stationery, including blank books for the Quartermaster's Department, certificates for discharged soldiers, blank forms for the Pay and Quartermaster's Departments, and for printing department orders and reports, one million eight hundred thousand dollars: *Provided*, That hereafter no part of the appropriations for the

Quartermaster's Department shall be expended on printing unless the same shall be done by contract, after due notice and competition, except in such cases as the emergency will not admit of the giving notice for the competition: *Provided, further*, That after advertisement all the supplies for the use of the various departments and posts of the Army and of the branches of the army service shall hereafter be purchased where the same can be purchased the cheapest, in the markets of the United States, quality and cost of transportation and the interest of the Government considered, except that purchases may be made in open market, in the manner common among business men, when the aggregate amount required does not exceed two hundred dollars, but every such purchase shall be immediately reported to the Secretary of War.

[NOTE.—Act approved February 24, 1900, suspends until June 30, 1901, all after the first-mentioned *Provided* in above paragraph. See par. 569 A. R. as to report of purchases.]

INCIDENTAL EXPENSES.

**105.** Postage; cost of telegrams on official business received and sent by officers of the Army; extra pay to soldiers employed on extra duty, under the direction of the Quartermaster's Department, in the erection of barracks, quarters, and storehouses, in the construction of roads, and other constant labor for periods of not less than ten days, and as clerks for post quartermasters at military posts, and for prison overseers at posts designated by the War Department for the confinement of general prisoners; for expenses of expresses to and

from frontier posts and armies in the field, of escorts to paymasters and other disbursing officers, and to trains where military escorts can not be furnished; expenses of the interment of officers killed in action, or who die when on duty in the field, or at military posts or on the frontiers, or when traveling under orders, and of noncommissioned officers and soldiers; authorized office furniture; hire of laborers in the Quartermaster's Department, including the hire of interpreters, spies, or guides for the Army; compensation of clerks and other employees to the officers of the Quartermaster's Department, and incidental expenses of recruiting; for the apprehension, securing, and delivering of deserters, the expenses incident to their pursuit, and no greater sum than ten dollars for each deserter shall be paid to any officer or citizen for such services and expenses; for a donation of five dollars to each dishonorably discharged prisoner upon his release from confinement, under court-martial sentence, involving dishonorable discharge; for the following expenditures required for the several regiments of cavalry, the batteries of light artillery, and such companies of infantry and scouts as may be mounted, the authorized number of officers' horses, and for the trains, to wit: Hire of veterinary surgeons, purchase of medicines for horses and mules, picket ropes, blacksmith's tools and materials, horseshoes and blacksmith's tools for the cavalry service, and for the shoeing of horses and mules, and such additional expenditures as are necessary and authorized by law in the movements and operation of the Army and at military posts, and not expressly assigned to

any other department, six hundred thousand dollars: *Provided*, That two hundred thousand dollars of the appropriation for incidental expenses, or so much thereof as shall be necessary, shall be set aside for the payment of enlisted men on extra duty at constant labor of not less than ten days in the Quartermaster's Department; but no such payment shall be made at any greater rate per day than is fixed by law for the class of persons employed at the work done therein.

HORSES FOR CAVALRY AND ARTILLERY.

**106.** For the purchase of horses for the cavalry and artillery, and for the Indian scouts, and for such infantry and members of the Hospital Corps in field campaigns as may be required to be mounted, and the expenses incident thereto, one hundred and thirty thousand dollars: *Provided*, That the number of horses purchased under this appropriation, added to the number on hand, shall not at any time exceed the number of enlisted men and Indian scouts in the mounted service, and that no part of this appropriation shall be paid out for horses not purchased by contract after competition duly invited by the Quartermaster's Department and an inspection by such department, all under the direction and authority of the Secretary of War.

[NOTE.—Act approved February 24, 1900, suspends until June 30, 1901, all after the word *Provided* in above paragraph.]

BARRACKS AND QUARTERS.

**107.** For barracks and quarters for troops, storehouses for the safe-keeping of military stores, for

offices, recruiting stations, and for the hire of buildings and grounds for summer cantonments, and for temporary buildings at frontier stations, for the construction of temporary buildings and stables, and for repairing public buildings at established posts, including the extra-duty pay of enlisted men employed on the same, seven hundred and fifty thousand dollars: *Provided*, That not more than one million dollars of the sums appropriated by this act shall be paid out for the services of civilian employees in the Quartermaster's Department, including those heretofore paid out of the funds appropriated for regular supplies, incidental expenses, barracks and quarters, army transportation, clothing, camp and garrison equipage.

[NOTE.—Act approved February 24, 1900, suspends until June 30, 1901, all after the word *Provided* in above paragraph.]

TRANSPORTATION OF THE ARMY AND ITS SUPPLIES.

**108.** Transportation of the Army, including baggage of the troops when moving either by land or water, and including also the transportation of recruits and recruiting parties heretofore paid from the appropriation for "Expenses of recruiting;" of supplies to the militia furnished by the War Department; of the necessary agents and employees; of clothing, camp, and garrison equipage, and other quartermaster stores, from army depots or places of purchase or delivery to the several posts and army depots, and from those depots to the troops in the field; of horse equipments and subsistence stores from the places of purchase, and from the places of delivery under contract to such

places as the circumstances of the service may require them to be sent; of ordnance, ordnance stores, and small arms from the foundries and armories to the arsenals, fortifications, frontier posts, and army depots; freights, wharfage, tolls, and ferriages; the purchase and hire of draft and pack animals and harness, and the purchase and repair of wagons, carts, and drays, and of ships and other seagoing vessels and boats required for the transportation of supplies and for garrison purposes; for drayage and cartage at the several posts; hire of teamsters and other employees; extra-duty pay of enlisted men driving teams, repairing means of transportation, and employed as train masters, and in opening roads and building wharves; transportation of funds of the Army; the expenses of sailing public transports on the various rivers, the Gulf of Mexico, and the Atlantic and Pacific oceans; for procuring water, and introducing the same to buildings, at such posts as from their situation require it to be brought from a distance, and for the disposal of sewage and drainage, and for constructing roads and wharves; for the payment of army transportation lawfully due such land-grant railroads as have not received aid in Government bonds (to be adjusted in accordance with the decisions of the Supreme Court in cases decided under such land-grant acts), but in no case shall more than fifty per centum of the full amount of service be paid, two million three hundred thousand dollars: *Provided*, That such compensation shall be computed upon the basis of the tariff or lower special rates

for like transportation performed for the public at large, and shall be accepted as in full for all demands for such service: *Provided further*, That in expending the money appropriated by this act a railroad company which has not received aid in bonds of the United States, and which obtained a grant of public land to aid in the construction of its railroad, on condition that such railroad should be a post route and military road, subject to the use of the United States for postal, militarv, naval, and other Government services, and also subject to such regulations as Congress may impose restricting the charge for such Government transportation, having claims against the United States for transportation of troops and munitions of war and military supplies and property over such aided railroads, shall be paid out of the moneys appropriated by the foregoing provision only on the basis of such rate for the transportation of such troops and munitions of war and military supplies and property as the Secretary of War shall deem just and reasonable under the foregoing provision, such rate not to exceed fifty per centum of the compensation for such Government transportation as shall at the time be charged to and paid by private parties to any such company for like and similar transportation; and the amount so fixed to be paid shall be accepted as in full for all demands for such service.

CONSTRUCTION AND REPAIR OF HOSPITALS.

**109.** For construction and repair of hospitals at military posts already established and occupied, including the extra-duty pay of enlisted men

employed on the same, and including also all expenditures for construction and repairs required at the Army and Navy Hospital at Hot Springs, Arkansas, except quarters for the officers, ninety thousand dollars.

QUARTERS FOR HOSPITAL STEWARDS.

**110.** For construction of quarters for hospital stewards at military posts already established and occupied, including the extra-duty pay of enlisted men employed on the same, seven thousand dollars.

SHOOTING GALLERIES AND RANGES.

**111.** For shelter, shooting galleries, ranges for small-arms target practice, repairs, and expenses incident thereto, ten thousand dollars.

CLOTHING AND CAMP AND GARRISON EQUIPAGE.

**112.** For cloth, woolens, materials, and for the manufacture of clothing for the Army, for issue and for sale at cost price according to the Army Regulations; for altering and fitting clothing and washing and cleaning, when necessary; for equipage, and for expenses of packing and handling, and similar necessaries; for a suit of citizen's outer clothing, to cost not exceeding ten dollars, to be issued upon release from confinement to each prisoner who has been confined under a court-martial sentence involving dishonorable discharge, nine hundred and seventy-five thousand dollars.

TRANSPORTATION OF PERSONS AND PROPERTY.

**113.** In issuing transportation for officers and enlisted men of the Army and persons connected

therewith, public property, private property of officers, donations to the sick, etc., see that the order is issued by proper authority, and keep an official copy of same for file in office.

**114.** Books of blank transportation requests will be provided by the Quartermaster General. They will be furnished to quartermasters, who will receipt and account for them. Requests issued will be reported on the prescribed form. The numbers of all requests received, issued, canceled, etc., will be specified in the proper abstracts, and all canceled requests will accompany voucher to Abstract I. (A. R., 1103.)

Officers will be held to a most rigid accountability for the care taken of transportation requests while in their possession to guard against fraudulent or improper use, which renders the United States liable for the money value of any tickets so obtained. The Comptroller of the Treasury, in a decision of April 19, 1900, holds that if such fraudulent use of requests is traceable to neglect of proper precautions by a United States officer to whose custody the requests were intrusted, he is liable for the money value involved in their misuse, no matter by whom the fraud is perpetrated. On this matter the Comptroller says: "When one of two innocent parties must suffer for the wrongful act of a third person, the loss must be borne by him who placed it in the power of such third person to do the act which occasions it."

**115.** An officer relieved from duty in the Quartermaster's Department or transferred to another station will turn over to his successor all blank

requests in his possession, unless otherwise directed, taking a receipt therefor, which will show the blank requests turned over and their numbers. (A. R., 1104.)

**116.** A person requiring transportation will exhibit an order from competent authority, and the quartermaster who furnishes it will make and file a certified copy of the same. The quartermaster will indorse on the original order, over his signature, the fact that transportation has been provided, its kind, the places from and to which it has been furnished, and the number of pounds of extra baggage transported, if any. The original order will be retained by the person who receives the transportation, and in case of a soldier entitled to commutation of rations while traveling will be disposed of as directed in paragraph 1275. Instructions printed on the back of requests, for the guidance of persons holding the request and for railroad companies and others concerned, must be carefully observed. When a quartermaster furnishes transportation, under the provisions of paragraph 110, to a soldier on furlough, he will report the actual or probable cost thereof to the company commander, and will enter on the furlough a statement that the transportation has been furnished. The officer paying the account will notify the company commander of the actual amount paid and the date of payment. (A. R. 1082.)

**117.** The duty of furnishing transportation at any post, station, or depot will be intrusted to one officer of the Quartermaster's Department, on whom requisitions will be made therefor. (A. R., 1079.)

**118.** On the application of a soldier on furlough, made at the nearest military station, and showing clearly the urgency of his case, a department commander may order transportation and subsistence to be furnished to enable him to rejoin his proper station, and the company commander will charge the cost thereof against the soldier's pay on the next muster and pay roll in accordance with paragraphs 1082 and 1277. The date of the application will be entered on the furlough. (A. R., 110.)

**119.** The stub of the request, containing its substance, and showing by what authority and for what purpose issued, will be preserved as a part of the permanent record of the post or office from which the issue was made. (A. R. 1106.)

**120.** The space on the request reserved for "Remarks" is intended for any extraordinary notice, as, for example, when special rates shall govern, or when limited or unlimited tickets shall issue in cases where two or more classes of tickets are on sale, differing in cost or in time during which they can be used. (See paragraph 2 on back of request.) Where through rates exist, notation should be made upon each of a series of separate requests involving continuous travel over two or more roads to the effect that settlement will be made on the basis of the division, among the roads interested, of the through limited rate for the entire journey. All officers charged with the duty of providing transportation will inform themselves upon these points, and will avail themselves of all opportunities of securing acceptable transportation at the lowest prevailing prices. The accommodations

afforded by tourist sleeping cars, colonist or emigrant sleepers (a seat by day and a berth by night for each soldier), will be furnished whenever practicable, provided the cost of such accommodations, in addition to the travel fare imposed, does not exceed the cost of through limited first-class tickets between the points involved. As a rule such accommodations should be procured at the cost of second-class fare with the price of seat or berth, or both, added; and in forwarding detachments even lower rates may be secured. Disbursing quartermasters will report to the Quartermaster General all cases of neglect or error on the part of officers issuing transportation requests which result in a waste of public money. (A. R. 1087.)

**121.** No portion of a request above the signature of the issuing officer will be changed in any particular. If explanations are required they will be made on the request. (See paragraph 3 on back of request.) (A. R., 1095.)

**122.** The officer furnishing the request will indorse thereon the authority for its issue, the number, date, and place of issue of the order for transportation, and the nature of the journey or purpose for which it is to be performed, as follows: "Changing station;" "Deserters" (giving name, rank, company, and regiment); "Returning from furlough, proper officer notified;" "On detached service" (the nature of the service to be stated); "Discharged soldiers en route home (or en route to paymaster), indorsed on final statement;" "Insane soldier with escort to insane asylum;" "Guard and prisoners;" "En route to or returning from civil

court under orders without summons;" "Clerk (or agent) of the Quartermaster's Department," and cause for travel, etc.; and if the request is issued by virtue of any contract, that fact will be stated and the contract designated. (A. R., 1086.)

Where competition is invited for the movement of Government troops and supplies, such invitation should contain the following clause: "It is to be understood that if subsequently it is found that a lower party rate, for the same kind and class of service herein required, is available to the public on the date the troops or supplies are moved, the Government reserves the right to avail itself of such lower rate, to the exclusion of the rate bid."

**123.** A request for transportation issued by a quartermaster should set forth the authority, date and place of issue, time for which it will be valid, name of company required to furnish transportation, name of the person or of the one in charge of the party to be transported, with number thereof, pounds of extra baggage, if any, organization to which the person belongs, if an officer or enlisted man, the places of original departure and ultimate destination, with the initial letters of each road or line to be used on the journey. (A. R., 1085.)

**124.** In providing transportation for persons and property the shortest practicable route will, as a rule, be adopted, although a longer one may be used to secure lower rates when time will permit.

When competing routes furnish equal facilities, advantages, and rates, each will be given a share of employment. (A. R., 1073.)

In accordance with the decision of the Secretary of War of July 10, 1885, and reaffirmed by the

Assistant Secretary of War May 7, 1900, all Government troops and supplies will be routed, where practicable, over bond-aided railroads, unless a lower net cash rate, exclusive of credit for earnings of the bond-aided railroad, is offered by another route.

**125.** When transportation to any given point and return is required, the request for return transportation should be obtained at the destination, provided it can be there procured, except in cases where round-trip tickets can be obtained at reduced rates and made available for the journey; otherwise the quartermaster will issue two sets of requests, one to the place of destination, the other for return transportation. (A. R., 1097.)

**126.** Officers will take advantage of any existing through rates, either for the whole or part of the journey. When transportation is required over several roads by which arrangements have been made for through transportation upon single tickets, a single request, addressed to the initial road, will be issued (except as provided in paragraph 1093), upon which tickets should be procured by the officer issuing it or by the party to be transported. (A. R., 1090.)

**127.** When transportation is furnished for the entire journey, the route, if not designated in the order, will be determined by the Quartermaster's Department in accordance with existing rules. (A. R., 1083.)

**128.** A quartermaster who provides the transportation for troops will notify, by mail or telegraph, the quartermasters at places where changes of route

are to be made or means of transportation are to be changed of the day on which the troops will start, their route, destination, number of officers, enlisted men and animals, and the quantity of public property and baggage for which transportation will be required. (A. R., 1084.)

**129.** If transportation is required over a line of roads, one or more of which are land-grant and subject to deduction of rates, and a single request is issued therefor, the name of the road, the fact that it is land-grant and subject to deduction will be stated in the request, and in settlement for the service the deduction on account of land-grant will be made. (A. R., 1091.)

**130.** If arrangements have been made for transportation for a part of the distance at less than the regular through rate, the rate for that part will be stated in the request. (A. R., 1092.)

**131.** When transportation is required over a land-grant road, used in connection with other roads, only *one* transportation request should be issued, if practicable, as required by G. O. 140, A. G. O., 1899. Separate requests must be issued in all cases where transportation is required over a bond-aided road. (A. R., 1093.)

**132.** Duplicate requests for transportation will not be issued, nor will a request be issued after the transportation service has been performed. (A. R., 1094.)

**133.** All unused tickets or parts of tickets procured on a transportation request will be returned to the officer who issued it, and by him forwarded to the officer who pays the account for the service.

The value of such ticket or parts of tickets will be deducted from any money due or to become due the company for transportation over whose line they were obtained. On the collection of the value of such unused tickets, they will be returned to the company by which they were issued. (A. R., 1096.)

**134.** Before accepting a bid for the movement of troops, and before settling an account with a carrier, where ten (10) or more persons are to be, or have been transported, the quartermaster will apply the provisions as laid down in the decision of the Comptroller, January 23, 1900, in regard to *Party Rates*, either for the whole, or any part of the journey. See A. R., 1090.

In a later decision of the Comptroller, January 25, 1900, it is provided that "The Government having issued a request calling for ten persons, and the railroad company having upon such request issued a party ticket entitling ten persons to be transported thereon, at said special and reduced rates, in the absence of any contract to that effect, it is not incumbent on the Government to actually furnish ten persons to be transported on said ticket, but the Government is bound to pay the carrier the full price of the ticket, and the carrier is bound to transport on the ticket a party composed of any number not exceeding ten. It is not an uncommon practice for persons, in the interest of economy, to purchase party tickets at reduced rates when a less number expect to travel thereon. This is fully understood by both the carrier and the travelers." It is further provided that "When it is desired to obtain the benefit of party rates as being less expensive to the

Government, the officer, if required by the carrier to do so, may receipt for the number called for in the request, provided he will state his reasons for so doing and the number of persons who were entitled to be, and are actually, transported." Therefore, if the total cost to the Government for a party ticket for ten is less than the total cost of nine, eight, seven, six, or five individual fares, the request should be drawn for ten and receipted for as provided. It should be remembered that a request drawn for *a less number than ten* (unless by special agreement between the officer and the carrier) can not be settled on the basis of party rate for ten. Party rates will be furnished from the office of the Quartermaster General or by the railroads on application.

**135.** When officers travel with troops their field allowance of baggage is placed in same cars as are provided for the personal and company property, for which purpose one car free to each one hundred men is provided. When officers travel without troops to join their command in the field and circumstances require that they take with them their authorized field allowance of baggage, it can go on said train as extra baggage at public expense. Such cases will, it is thought, be rare. (End. Q. M. G. O., May 24, 1898—111966.)

**136.** The following persons are entitled, at public expense, to a double berth in a sleeping car, or to the customary stateroom accommodations on steamers where extra charge is made for the same: Officers of the Army traveling on duty with troops; army nurses, civilian clerks, and agents in the military service, when traveling under orders on

public business; sergeant majors, ordnance, commissary (post or regimental), quartermaster (post or regimental), and electrician sergeants, hospital stewards, chief musicians, chief trumpeters, principal musicians, and sergeants of the Signal Corps, when traveling under orders on public business without troops; also invalid soldiers when so traveling on the certificate of a medical officer showing the necessity therefor. When the number of officers traveling with troops is too small to justify the hire by the Quartermaster's Department of a standard sleeping car for their accommodation, they shall be furnished with such part of a tourist sleeping car, or other suitable sleeping car, properly curtained off for their accommodation, as the Quartermaster's Department may provide for their use during the journey. (G. O. 111, A. G. O., June 17, 1899.)

**137.** Public property will be transported on bills of lading, which will be numbered consecutively in the order of shipment, without regard to the officer by whom shipped, beginning with the first shipment of each fiscal year. They will consist of two parts, the original and duplicate, each to be certified by the shipping officer and receipted by the carrier. (A. R., 1133.)

**138.** Bills of lading will show the number, marks, contents, and weight or measurement of each package or class of packages to be transported, as follows:

| Marks. | No. | No. of packages. | Contents.* | Weight. |
|---|---|---|---|---|
| | | | | *Pounds.* |
| Maj. Geo. Bliss, | 1 to 20 | 20 boxes | Canned corned beef | 1,200 |
| C. S., U. S. A., | 21 to 30 | 10 boxes | Dried salmon | 1,500 |
| Washington, D. C. | 31 to 35 | 5 boxes | Evaporated peaches | 300 |
| U. S. property. | 36 to 40 | 5 boxes | Canned tomatoes | 300 |
| Maj. John Bell, | 41 to 45 | 5 boxes | Blacksmith's tools | 960 |
| Depot Q. M., | 46 to 50 | 5 boxes | Carpenter's tools | 384 |
| Washington, D. C. | 51 | 1 box | Mason's tools | 236 |
| U. S. property. | 52 | 1 keg | Chains | 372 |
| | 53 to 55 | 3 coils | Rope | 648 |
| | 56 to 60 | 5 bales | Coats | 550 |
| | 61 and 62 | 2 bales | Sheets | 120 |
| Capt. John Smith, | 63 to 65 | 3 boxes | Hats | 200 |
| Q. M., U. S. A., | 66 to 70 | 5 boxes | Shoes | 500 |
| Georgetown, D. C | 71 to 75 | 5 kegs | Horseshoes | 600 |
| | 76 and 77 | 2 kegs | Horseshoe nails | 75 |
| | 78 to 80 | 3 kegs | Cut nails | 360 |
| | 81 and 82 | 2 bundles | Bar iron | 200 |
| Lieut. James Smith, | | | | |
| 1st Infantry, | 83 and 84 | 2 boxes | Baggage | 800 |
| Fort Monroe, Va., | 85 to 88 | 4 pkgs | Furniture | 900 |
| changing station. | 89 to 91 | 3 chests | Prof. books, papers, in truments, etc. (as the case may be). | 100 |
| Private property. | | | | |
| Co. I, 1st Infantry. | 92 and 93 | 2 boxes | Books | 754 |
| Co. property. | 94 | 1 box | Field desk | 100 |
| Fort Meyer, Va. | 95 and 96 | 2 boxes | Band instruments | 326 |
| Comdg. Officer, Rock Island Arsenal. From Capt. John A. Robinson, 7th Infantry. | 97 | 1 box | Bayonet scabbards and belts. | 160 |
| | | | Total | 11,645 |

Via (the route to be stated, giving the initials of each road if practicable).

*The contents should be shown in sufficient detail to enable the Quartermaster's Department to recover in case of loss, as well as to know in all cases what was actually transported. (A. R., 1135.)

**139.** In the transportation of baggage with officers or troops, the bill of lading should show plainly whether the whole weight specified in the bill is to

be paid for by the United States, or whether a deduction is to be made for the number of pounds allowed each passenger by the carrier. In the latter case, if the actual number of pounds to be deducted is not known, the number of persons receiving transportation will be stated. (A. R., 1136.)

**140.** In no case will a second original or duplicate bill of lading, or a copy of a bill of lading, be issued to the carrier for any shipment, nor will a bill of lading be issued after the transportation service has been performed. (A. R., 1140.)

**141.** The rate of transportation charges and the initial letters of each road by which the supplies are to be transported will be inserted in the bill of lading. (A. R., 1141.)

**142.** The original bill of lading will be given to the carrier at the time the shipment is made, and upon the delivery of the property in good order and condition will be receipted by the consignee and returned to the carrier with such further indorsement as may be necessary to insure settlement. The duplicate will be promptly transmitted by the shipping officer to the consignee, and upon delivery of the property will be receipted in like manner as the original and forwarded to the paying officer. If the shipping officer is not the paying officer, he will be notified by letter of the receipt of the supplies and their condition when received. (A. R., 1142.)

**143.** The baggage to be transported at public expense, including mess chests and personal baggage, upon change of station, will not exceed the following

weights, as prescribed by General Order No. 122, A. G. O., 1900:

| Rank. | In the field. | Changing station. |
|---|---|---|
| | *Pounds.* | *Pounds.* |
| Major general | 1,000 | 3,500 |
| Brigadier general | 700 | 2,800 |
| Field officer | 500 | 2,400 |
| Captain | 200 | 2,000 |
| First lieutenant | 150 | 1,700 |
| Second lieutenant and veterinarians, 1st class | 150 | 1,500 |
| Acting assistant surgeon | 150 | 1,200 |
| Post and regimental noncommissioned staff officer, hospital steward, chief musician, sergeant of the Signal Corps, squadron and battalion sergeant majors, and veterinarians, 2d class, each | | 500 |

For officers and others in the above list, when embarking under orders for extended service over the sea and for duty in Alaska, and upon change of station in Alaska, and in places beyond the limits of the United States, as well as upon return to the United States, the allowance of baggage to be transported by the Quartermaster's Department from initial point to port of embarkation, and from port of destination to garrison station, will be three times the allowance prescribed above for change of station.

This order does not affect quantity of personal effects to be transported at public expense between stations in the United States.

These allowances are in excess of the weights transported free of charge under the regular fares by public carriers. They may be reduced pro rata by the commanding officer, if necessary, and may, in special cases, be increased by the War Department on transports by water. Shipments of officers' allowance of baggage will in all cases be made at

carriers' risk, including those over roads where tariffs provide for extra charge therefor. (G. O. 122, A. G. O., 1900.)

**144.** Quartermasters will, prior to shipment, securely pack, seal, and weigh all quartermasters' supplies, if practicable. (A. R., 1123.)

**145.** Quartermasters and agents shipping public property or baggage will mark every package with the name and station of the officer to whom consigned, and will number them consecutively. Packages of quartermasters' supplies should, so far as practicable, bear consecutive numbers, to be preceded or followed by the numbers given to the packages of other classes of property shipped at the same time, but no two packages of the same shipment will bear the same number except in case of reshipment of packages already numbered. When supplies are shipped in large quantities, and in packages of like dimensions and weight, numbering may be omitted. In cases of reshipment, stores will be re-marked, if necessary, by the officer required to reship them. (A. R., 1124.)

**146.** Officers turning over property to a quartermaster for transportation will plainly mark each package with the name and address of consignee, a list of its contents, its weight, and "U. S." (A. R., 1125.)

**147.** The Quartermaster's Department may provide transportation of baggage for enlisted men traveling under orders without troops not to exceed the following weights:

| | Pounds. |
|---|---|
| Noncommissioned officers | 100 |
| Privates of the Hospital Corps | 100 |
| Other privates | 50 |

This allowance will be in excess of the number of pounds of baggage carried free on the passage ticket. (A. R., 1101.)

**148.** The Quartermaster's Department will transport for officers changing station the number of horses for which they are legally entitled to forage, and an attendant to accompany the horses when necessary, subject to the following restrictions:

1. That the expense paid by the United States shall not exceed $100 for each horse transported. The cost of such shipment will be ascertained in advance, and if found to exceed $100 for each horse, including transportation of attendant, if any, the excess must be paid by the owner, who must also pay all the expenses of the attendant other than his transportation.

2. That the horses are owned by the officer and were used by him in the public service at the station from which he is ordered to move, and are intended to be so used by him at his new station. (A. R., 1069, amended by G. O. 157, A. G. O., series 1899.)

**149.** The Quartermaster's Department will furnish transportation for the private horses of officers of volunteers who may be mustered out of the service on account of the muster out of their organizations, or by reason of their services being no longer required, from the places where they are mustered out to the places where they were enrolled or entered the volunteer service, respectively, provided it be shown that such private horses were obtained at the latter places. (G. O. 26, A. G. O., Feb. 9, 1899.)

**150.** Soldiers returning from furlough are entitled to transportation from old to new station of company. (Cir. 5, A. G. O., 1883.)

**151.** If tickets over Canadian routes can be purchased for individual soldiers on furlough, etc., at lower rates than by other lines, they may be furnished over such routes; such travel to be by any passenger route accessible to the general public, limited to unarmed individual soldiers, and not to include organized forces under command. (Decision Sec. War, letter Feb. 9, 1887—6649, A. G. O., 1886; Cir. 2, 1887.)

**152.** Officers traveling on duty under orders with less than three enlisted men are regarded as traveling without troops and are entitled to travel allowances; with three or more men, as traveling with troops. (Cir. 37, A. G. O., 1898.)

**153.** For list and map of bond-aided and land-grant roads see General Orders 140 of 1899, A. G. O.

**154.** In the transportation of baggage with officers or troops, the bill of lading should show plainly whether the whole weight specified in the bill is to be paid for by the United States or whether a deduction is to be made for the number of pounds allowed each passenger by the carrier. In the latter case, if the actual number of pounds to be deducted is not known, the number of persons receiving transportation will be stated. (See A. R., 1136.)

In inviting competition for such movements, proposals should in all cases be required to state that the right to carry 150 pounds of such miscellaneous property which accompanies the movement is granted by the bidder.

**155.** "Agreement roads," as referred to in Army bill for 1900, are such roads as have volunteered to carry passengers, and in some cases freight, for the

Army between points reached by them, as well as by a road having a land-grant mileage, at the same rate as inures by the road having the longest land-grant mileage to such points as are common to both lines.

This makes such "agreement roads" practically land-grant so far as their use by the Quartermaster's Department is concerned, and shipment of troops and stores may be made over them without increased cost to the United States, which entitled them to a division of business, as provided in A. R. 1073.

A list of such "agreement roads," to date, is published on page 26, G. O. 140, A. G. O., 1899, and sheet of errata or additions which accompanies said order, or may be obtained by application to Quartermaster General. Strict attention should be given where such roads are used, or should have been used, to exclusion of more costly routes, by officers stating and paying transportation accounts, as well as by officers providing transportation for the Army.

**156.** The Quartermaster's Department will ship all freight that may be delivered to it, securely packed and properly marked, by any of the Executive Departments or Bureaus of the Government. Separate bills of lading will be used and the following notation made thereon. "Payable by the Treasury Department," "the Navy Department," "the Interior Department," "the National Museum," "the United States Commission," etc. When practicable, the bureau to which the freight pertains will be stated, for example: "Payable by the

Navy Department, Bureau of Ordnance." Accounts in duplicate supported by these bills of lading will be prepared by any quartermaster to whom they may be presented, and will be forwarded to the Quartermaster General. In making up the accounts the same plan as to deduction on account of land or bond aided railroads will be pursued as in accounts for transportation of other Government property. (A. R., 1129.)

### FUEL, FORAGE, AND STRAW.

**157.** The Quartermaster's Department provides and issues fuel to enlisted men, hospital matrons, guards, hospitals, storehouses, offices, military courts and boards, certain employees of the Quartermaster's, Subsistence, and Medical Departments, for telegraph offices, blacksmith, carpenter, saddler, and paint shops, etc. The allowance is set forth below.

It also provides and sells fuel to officers according to the list below.

The summer allowance of fuel is from May 1 to August 31, and is the same for all latitudes.

The winter allowance depends on the latitude. It is the same for all points south of 36 degrees north latitude. Between the thirty-sixth and forty-third degrees north latitude the allowance is increased one-fourth, and north of the forty-third degree north latitude the allowance is increased one-third. There is also an extra allowance for extremely cold weather, as provided in A. R. 1011.

The following table shows the winter allowance of hard wood for from 1 man to 1,300 for one month,

south of thirty-sixth degree north latitude, from September 1 to April 30:

| Privates, musicians, and noncommissioned officers. | | | | | | | | Noncommissioned staff. | | | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | C. | Ft. | In. | No. | C. | Ft. | In. | No. | C. | Ft. | In. | |
| 1 | --- | 1 | 4 | 30 | 5 | 0 | 0 | 1 | 1 | 0 | 0 | The allowance for the summer months (May 1 to August 31) is one-half the amounts in this table. Between the thirty-sixth and forty-third degrees north latitude allowance is one-fourth additional; north of forty-third degree, one-third. Under the head of noncommissioned staff are included sergeant majors, quartermaster sergeants, sergeants of the post noncommissioned staff, hospital stewards, veterinary surgeons, signal sergeants (when not serving with a detachment), and chief musicians. |
| 2 | --- | 2 | 8 | 40 | 6 | 5 | 4 | 2 | 2 | 0 | 0 | |
| 3 | --- | 4 | 0 | 50 | 8 | 2 | 8 | 3 | 3 | 0 | 0 | |
| 4 | --- | 5 | 4 | 60 | 10 | 0 | 0 | 4 | 4 | 0 | 0 | |
| 5 | --- | 6 | 8 | 70 | 11 | 5 | 4 | 5 | 5 | 0 | 0 | |
| 6 | 1 | 0 | 0 | 80 | 13 | 2 | 8 | 6 | 6 | 0 | 0 | |
| 7 | 1 | 1 | 4 | 90 | 15 | 0 | 0 | 7 | 7 | 0 | 0 | |
| 8 | 1 | 2 | 8 | 100 | 16 | 5 | 4 | 8 | 8 | 0 | 0 | |
| 9 | 1 | 4 | 0 | 200 | 33 | 2 | 8 | 9 | 9 | 0 | 0 | |
| 10 | 1 | 5 | 4 | 300 | 50 | 0 | 0 | 10 | 10 | 0 | 0 | |
| 11 | 1 | 6 | 8 | 400 | 66 | 5 | 4 | 11 | 11 | 0 | 0 | |
| 12 | 2 | 0 | 0 | 500 | 83 | 2 | 8 | 12 | 12 | 0 | 0 | |
| 13 | 2 | 1 | 4 | 600 | 100 | 0 | 0 | ---- | ---- | --- | --- | |
| 14 | 2 | 2 | 8 | 700 | 116 | 5 | 4 | ---- | ---- | --- | --- | |
| 15 | 2 | 4 | 0 | 800 | 133 | 2 | 8 | ---- | ---- | --- | --- | |
| 16 | 2 | 5 | 4 | 900 | 150 | 0 | 0 | ---- | ---- | --- | --- | |
| 17 | 2 | 6 | 8 | 1,000 | 166 | 5 | 4 | ---- | ---- | --- | --- | |
| 18 | 3 | 0 | 0 | 1,100 | 183 | 2 | 8 | ---- | ---- | --- | --- | |
| 19 | 3 | 1 | 4 | 1,200 | 200 | 0 | 0 | ---- | ---- | --- | --- | |
| 20 | 3 | 2 | 8 | 1,300 | 216 | 5 | 4 | ---- | ---- | --- | --- | |

**158**. The following table shows the number of rooms, the quantity of fuel, and the allowance of cooking and heating stoves to be supplied for the use of officers and men in quarters and barracks. (A. R., 1006.)

| | Rooms. | | | Cords of wood per month. | | Increased allowance from September to April, both inclusive. | | Fur quarters. | | For office. |
|---|---|---|---|---|---|---|---|---|---|---|
| | As quarters. | As kitchen. | As office. | From May 1 to August 31. | From September 1 to April 30. | Between thirty-sixth and forty-third degrees north latitude, one-fourth. | North of forty-third degree, one-third. | Heating stoves. | Cooking stoves or ranges. | Heating stoves. |
| A lieutenant general or major general | 5 | 1 | ---- | 1 | 5 | 1¼ | 1⅔ | 5 | 1 | ---- |
| A brigadier general or colonel | 4 | 1 | ---- | 1 | 4 | 1 | 1⅓ | 4 | 1 | ---- |
| A lieutenant colonel or major | 3 | 1 | ---- | 1 | 3½ | ⅞ | 1⅙ | 3 | 1 | ---- |
| A captain or chaplain | 2 | 1 | ---- | ⅔ | 3 | ⅔ | 1 | 2 | 1 | ---- |
| A lieutenant | 1 | 1 | ---- | ⅔ | 2 | ½ | ⅔ | 1 | 1 | ---- |
| The Commanding General of the Army | ---- | ---- | 3 | ---- | 3 | ¾ | 1 | ---- | ---- | 3 |
| The commanding officer of a territorial department | ---- | ---- | 2 | ---- | 2 | ½ | ⅔ | ---- | ---- | 2 |
| The aids to the commanding officer of a territorial department | ---- | ---- | 1 | ---- | 1 | ¼ | ⅓ | ---- | ---- | 1 |
| An assistant or deputy quartermaster general, an assistant commissary general of subsistence, an assistant surgeon general, the assistant and deputy paymaster general, and the chief quartermaster and chief commissary at the headquarters of a territorial department, each | ---- | ---- | 2 | ---- | 2 | ½ | ⅔ | ---- | ---- | 2 |
| The commanding officer of a regiment or post, a paymaster, quartermaster, assistant quartermaster, commissary, and military storekeeper, each | ---- | ---- | 1 | ---- | 1 | ¼ | ⅓ | ---- | ---- | 1 |

| | Rooms. | | | Cords of wood per month. | | Increased allowance from September to April, both inclusive. | | For quarters. | | For office. |
|---|---|---|---|---|---|---|---|---|---|---|
| | As quarters. | As kitchen. | As office. | From May 1 to August 31. | From September 1 to April 30. | Between thirty-six and forty-third degrees north latitude, one-fourth. | North of forty-third degree, one-third. | Heating stoves. | Cooking stoves or ranges. | Heating stoves. |
| An acting assistant quartermaster, an acting commissary of subsistence, an adjutant, when approved by the Quartermaster General, each | | | 1 | | 1 | ¼ | ⅓ | | | 1 |
| A sergeant major, quartermaster sergeant, sergeant of the post noncommissioned staff, hospital steward, veterinary surgeon, signal sergeant,* and chief musician, each | 1 | | | ½ | 1 | ¼ | ⅓ | 1 | | |
| Each noncommissioned officer, musician, private, and hospital matron | | | | 1/12 | ⅛ | 1/24 | 1/18 | | | |
| Each necessary fire for the sick in hospital, each dispensary and hospital mess room, at a military post or station, to be regulated by the surgeon and commanding officer, not exceeding | | | | ½ | 2 | ½ | ⅔ | 1 | | |
| For general hospitals, when necessary, not exceeding, for each bed | | | | 1/12 | ⅛ | 1/24 | 1/18 | | | |
| Each guard fire, to be regulated by the commanding officer, not exceeding | | | | | 3 | ¾ | 1 | 1 | | |
| Each necessary fire for military courts or boards, at a rate not exceeding for each | | | | | 2 | ½ | ⅔ | 1 | | |
| Storehouse of a commissary and quartermaster, when necessary, not exceeding | | | | | 1 | ¼ | ⅓ | 1 | | |
| Each employee of the Quartermaster's, Subsistence, or Medical Department to whom subsistence in kind is issued by the Government | | | | 1/12 | ⅛ | 1/24 | 1/18 | | | |

*Except when serving in a detachment.

| | Rooms. | | | Cords of wood per month. | | Increased allowance from September to April, both inclusive. | | For quarters. | | For office. |
|---|---|---|---|---|---|---|---|---|---|---|
| | As quarters. | As kitchen. | As office. | From May 1 to August 31. | From September 1 to April 30. | Between thirty-sixth and forty-third degrees north latitude, one-fourth. | North of forty-third degree, one-third. | Heating stoves. | Cooking stoves or ranges. | Heating stoves. |
| For a company: 2 large stoves in dormitory, 1 large stove in each mess room and day room, 1 small stove for each of the two rooms for noncommissioned officers, 1 small stove for the library, and 1 cooking stove or range sufficient to cook its food. | | | | | | | | | | |
| Each hospital kitchen | | | | | | | | | 1 | |
| For each authorized room as quarters for civilian employee | | | | | | | | 1 | | |
| For each six civilian employees to whom fuel is allowed | | | | | | | | 1 | | |
| For mess of civilian employees | | | | | | | | | 1 | |
| For telegraph office | | | | | | | | 1 | | |
| For each blacksmith, carpenter, and saddler shop | | | | | | | | 1 | | |

Where it is necessary to have a fire in the telegraph office, or shop, or other places, make application to the Quartermaster General of the Army for authority to expend fuel, stating the necessity in each case.

**159.** Merchantable oak wood is the standard; the cord is 128 cubic feet. The scale of equivalents to govern in the issue and sale of fuel is published from time to time in general orders. (A. R., 1002.)

**160.** Where soft wood is used, issue $1\frac{1}{3}$ cords of yellow pine, or $1\frac{3}{4}$ cords of poplar, white pine,

or cottonwood, as the equivalent of 1 cord of standard oak wood.

**161.** Fuel issued to troops is public property. Any portion not consumed by them will be returned to the quartermaster and taken up on his return. Fuel so issued, however, and not consumed in quarters, may be used in baking the soldiers' bread; and at any post where coal is used exclusively the quartermaster may, upon the request of the post commander, provide as part of the fuel allowance an equivalent of wood in lieu of coal sufficient for the post bakery. (A. R., 1004.)

**162.** Fuel will be issued only in the month when due. The cheapest fuel at the place of issue will, all things considered, be furnished. (A. R., 1005.)

**163.** Officers who desire to purchase fuel of the Quartermaster's Department will make requisition therefor. Payment will be made at the time of sale and receipt given. (A. R., 1000.)

**164.** Fuel will be sold only on the officer's certificate that it is for his personal or family use, and he will not sell or exchange it. (A. R., 1001.)

**165.** Families of soldiers as well as of officers shall, during the absence abroad of the head of the family, be permitted to buy for their use at contract rates reasonable quantities of fuel and subsistence stores from the proper supply departments at military posts. (Cir. 30, A. G. O., 1899.)

**166.** The commanding officer of a post at or near which the immediate family of a regular or volunteer soldier who is absent abroad resides may, if

the residence and other conditions of such family make it proper, grant to the head thereof permits to purchase from the supply departments at the post, for cash at cost prices, such quantities of fuel and subsistence stores as in his opinion may be reasonably needed for the sole use of the soldier's immediate family. (Cir. 33, A. G. O., 1899.)

**167.** Officers may purchase from the Quartermaster's Department the fuel actually needed for their own use. For the quantity allowed them in the table contained in paragraph 1006 they will pay at the rate of $3 per cord for standard oak wood, or the equivalent thereof in other kinds of fuel, as determined by the Quartermaster General. For any additional quantity they shall pay the contract price, or $3 per cord if the contract price is less than $3. Officers on the retired list, officers on sick leave or under sentence of suspension from duty on reduced pay, when absent from their proper stations, are not entitled to this privilege. (A. R., 998.)

Under paragraph 998 of the Regulations the Quartermaster's Department may sell fuel to contract surgeons and to families of officers who are temporarily absent, or who are on duty abroad or in Alaska, on the written certificate of the officer that the amount of his allowance covered by the certificate will not be otherwise drawn by him.—*Decision Sec. War, Aug. 21, 1900—338926 A. G. O.* (Cir. 29, A. G. O., 1900.)

**168.** The following table shows the number of rooms, the quantity of standard oak wood that may be sold monthly to officers at $3 per cord, and the allowance of cooking and heating stoves to be

supplied for the use of officers in quarters and barracks. (A. R., 1006.)

| Officers. | Rooms. | | Cords of wood per month. | | Increased allowance from September to April, both inclusive. | | For quarters. | |
|---|---|---|---|---|---|---|---|---|
| | As quarters. | As kitchen. | From May 1 to August 31. | From September 1 to April 30. | Between thirty-sixth and forty-third degrees north latitude, one-fourth. | North of forty-third degree, one-third. | Heating stoves. | Cooking stoves or ranges. |
| A lieutenant or major general | 5 | 1 | 1 | 5 | 1¼ | 1⅓ | 5 | 1 |
| A brigadier general or colonel | 4 | 1 | 1 | 4 | 1 | 1⅓ | 4 | 1 |
| A lieutenant colonel or major | 3 | 1 | 1 | 3½ | ⅞ | 1⅙ | 3 | 1 |
| A captain or chaplain | 2 | 1 | ½ | 3 | ¾ | 1 | 2 | 1 |
| A lieutenant | 1 | 1 | ½ | 2 | ½ | ⅔ | 1 | 1 |

**169.** The forage ration for a horse is 14 pounds of hay and 12 pounds of oats, corn, or barley; for a mule, 14 pounds of hay and 9 pounds of oats, corn, or barley. Department commanders will reduce the forage ration when necessary. (A. R., 1041.)

**170.** Where grazing is practicable, or when little labor is required, commanding officers will order a judicious reduction of the forage ration. (A. R., 1042.)

**171.** Forage will be issued only during the month when due. (A. R., 1043.)

**172.** Forage is furnished only to officers for the horses owned and actually kept by them in the performance of their official duties when serving with troops in the field or at military posts and stations, and for the following number: To a lieutenant

general, four; to a major general or a brigadier general, three; to a colonel, lieutenant colonel, major, captain, or lieutenant, mounted, and regimental adjutant and quartermaster, each two. (A. R., 1044.)

**173.** Mounted officers will not use public horses and at the same time draw forage for those they own; nor will they use public animals except as authorized by Regulations. Should circumstances render it necessary, an officer may be temporarily furnished public horses, but during such period he will not be permitted to draw forage for a private horse. (A. R,, 1045.)

**174.** An officer not mounted may purchase forage for two horses kept for his own use, for which he will be charged cost, including transportation. The sale of forage to mounted officers is forbidden. (A. R., 1046.)

**175.** When mattresses are not supplied, men in field hospitals will be allowed a bed sack and such quantity of straw per month as the chief medical officer shall certify as necessary. (A. R., 1048.)

**176.** One hundred pounds of straw per month is allowed for bedding to each horse or mule in public service. At posts where straw is not furnished hay will be issued and used for bedding. (A. R., 1049.)

**177.** Chaplains are not entitled to forage. (Cir. 5, A. G. O., 1886.)

**178.** When forage is purchased for a train en route, the certificate of the officer in charge of the train will cover such purchases. (387, Q. M. Compendium, 1898.)

**179.** Grain, hay, straw, and coal, when received, will be carefully weighed. Wood will be carefully piled and measured. (A. R., 1059.)

An officer shall not sell, nor allow to be sold, the forage issued for his own horses or the public animals under his charge; Nor shall he use or dispose of, or permit to be used or disposed of, such forage, or any portion thereof, except for the purpose for which it was issued. Forage issued for a particular period and unconsumed during the period will be taken up and properly accounted for. The commanding officer will compare the requisitions with the quartermaster's abstract of issues and sales of forage, and if correct, so certify on the abstract. (A. R., 1047.)

**180.** Table showing the forage ration for any number of mules and horses from 1 to 1,300:

| No. | Oats, corn, or barley. | | Hay. | Straw. | No. | Oats, corn, or barley. | | Hay. | Straw. |
|---|---|---|---|---|---|---|---|---|---|
| | Mules. | Horses. | Mules and horses. | Mules and horses. | | Mules. | Horses. | Mules and horses. | Mules and horses. |
| | *Pounds.* | *Pounds.* | *Pounds.* | | | *Pounds.* | *Pounds.* | *Pounds.* | |
| 1 | 9 | 12 | 14 | | 30 | 270 | 360 | 420 | |
| 2 | 18 | 24 | 28 | | 40 | 360 | 480 | 560 | |
| 3 | 27 | 36 | 42 | | 50 | 450 | 600 | 700 | |
| 4 | 36 | 48 | 56 | | 60 | 540 | 720 | 840 | |
| 5 | 45 | 60 | 70 | | 70 | 630 | 840 | 980 | |
| 6 | 54 | 72 | 84 | | 80 | 720 | 960 | 1,120 | |
| 7 | 63 | 84 | 98 | | 90 | 810 | 1,080 | 1,260 | |
| 8 | 72 | 96 | 112 | | 100 | 900 | 1,200 | 1,400 | |
| 9 | 81 | 108 | 126 | | 200 | 1,800 | 2,400 | 2,800 | |
| 10 | 90 | 120 | 140 | | 300 | 2,700 | 3,600 | 4,200 | |
| 11 | 99 | 132 | 154 | | 400 | 3,600 | 4,800 | 5,600 | |
| 12 | 108 | 144 | 168 | | 500 | 4,500 | 6,000 | 7,000 | |
| 13 | 117 | 156 | 182 | | 600 | 5,400 | 7,200 | 8,400 | |
| 14 | 126 | 168 | 196 | | 700 | 6,300 | 8,400 | 9,800 | |
| 15 | 135 | 180 | 210 | | 800 | 7,200 | 9,600 | 11,200 | |
| 16 | 144 | 192 | 224 | | 900 | 8,100 | 10,800 | 12,600 | |
| 17 | 153 | 204 | 238 | | 1,000 | 9,000 | 12,000 | 14,000 | |
| 18 | 162 | 216 | 252 | | 1,100 | 9,900 | 13,200 | 15,400 | |
| 19 | 171 | 228 | 266 | | 1,200 | 10,800 | 14,400 | 16,800 | |
| 20 | 180 | 240 | 280 | One hundred lbs. per month per animal. | 1,300 | 11,700 | 15,600 | 18,200 | One hundred lbs. per month per animal. |

The salt ration for horses and mules is 2 ounces per week, which may be increased to 12 ounces per month when so much is considered necessary by the commanding officer.

Bran, when issued to public animals, is in lieu of an equal number of pounds of the grain ration.

### PUBLIC ANIMALS AND VETERINARY SUPPLIES.

**181.** A descriptive book of public animals will be kept with every troop of cavalry and battery of light artillery, and with the records of every officer responsible for public animals. It will contain a description of every animal received and transferred, showing the kind, name, age, size, color, marks, brands, or other peculiarities of each; how and when acquired, and if disposed of, in what manner; the name of its rider or driver, and the particular use to which applied. (A. R., 1034.)

**182.** When public animals are issued or transferred, the person in charge will be provided with full and accurate descriptive lists, Form No. 64, which he will deliver to the receiving officer, by whom they will be entered in his descriptive book of public animals. (A. R., 1035.)

**183.** A complete descriptive list of each animal will be made at the time of purchase, and will accompany him wherever he may be transferred. (A. R., 1033.)

**184.** Public animals shall, upon the day received, be branded with the letters "U. S." on the left fore shoulder. Cavalry and artillery horses, assigned to organizations, will also be branded on the hoof of one fore foot, one and one-half inches below the

coronet, with the designation of the regiment and the troop or battery. Branding irons will be supplied by the Quartermaster's Department, of uniform size and design. Letters "U. S." to be 2 inches in height. Letters and numbers of hoof brands on the same line, to be three-fourths of an inch high, the letters to precede the number, and blocked so as to penetrate the hoof one-sixteenth of an inch. (G. O. 62, A. G. O., Nov. 9, 1897.)

**185.** Condemnation and sale of horses that by care may be made to render reasonable service to the Government will not be sanctioned. (Cir. 3, A. G. O., 1899.)

**186.** There is no authority of law for supplying horses to mount officers of infantry when temporarily acting as field officers. (Cir. 3, A. G. O., 1898.)

**187.** By direction of the Secretary of War, the requirements of subdivision *b*, paragraph 10, General Orders No. 81, June 27, 1898, from this office, providing for the turning into the Quartermaster's Department of cavalry horses unfit for cavalry service, but fit for team or draught horses, are rescinded within the limits of the United States. (G. O. 49, A. G. O., 1900.)

**188.** Veterinary medicines, instruments, and supplies for the treatment of public animals and authorized private horses of mounted officers are furnished by the Quartermaster's Department.

Estimates will be prepared on the regular form for estimates for quartermasters' stores, and in conformity with the standard supply table furnished by the Quartermaster General. (A. R., 1038.)

**189.** The quartermaster will have charge of veterinary medicines and dressings, and, under the direction of the commanding officer, will issue and expend such articles and in such quantities as may be necessary. A special requisition for articles not in the table, with an explanation of the nature of the emergency or case rendering it necessary, will be forwarded through the regular channel for the action of the Quartermaster General. (A. R., 1039.)

**190.** Veterinary instruments and books will remain in the custody of the quartermaster, and will be loaned as needed in the public service. (A. R., 1040.)

**191.** Allowance of quinine to animals is as follows:

| | Ounces. |
|---|---|
| Per quarter, for 100 animals | 5 |
| Per quarter, for 200 animals | 6 |
| Per quarter, for 500 animals | 7 |

(Letter Q. M. G. O., Sept. 6, 1891—16442.)

## STATIONERY.

**192.** Issues of stationery are made quarterly, and the allowances are as follows:

| | Quires of writing paper. | Quires of envelope paper. | Sheets of blotting paper. | Number of pens. | Number of pen-holders. | Pints of black ink. | Ounces of red ink. | Pints of mucilage. | Ounces of sealing wax. | Pieces of office tape. | Envelopes. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Commander of an army, division, or department.* | | | | | | | | | | | |
| Commander of a brigade or district, for himself and staff | 12 | ¼ | 24 | 50 | 4 | 2 | 2 | 1½ | 8 | 2 | 200 |
| Officer commanding a regiment or post of not less than 5 companies, for himself and staff | 10 | ¼ | 24 | 40 | 3 | 2 | 1 | 1½ | 6 | 2 | 150 |
| Officer commanding a post of more than 2 and less than 5 companies | 8 | ¼ | 20 | 30 | 3 | 1 | 1 | 1 | 5 | 1 | 120 |
| Commanding officer of 2 companies | 7 | ¼ | 15 | 25 | 2 | 1 | 1 | ½ | 4 | 1 | 100 |
| Commanding officer of a post of 1 company, or less, and commanding officer of a company | 6 | ¼ | 10 | 20 | 2 | 1 | 1 | ½ | 3 | 1 | 80 |
| A lieutenant colonel or major not in command of a regiment or post | 3 | ---- | 5 | 12 | 1 | 1 | ---- | ½ | 2 | 1 | 40 |
| Officers of the Inspector General's, Pay, and Quartermaster's Departments.† | | | | | | | | | | | |
| All officers, including chaplains, not enumerated above, when on duty and not supplied by their respective departments | 2 | ⅛ | 5 | 6 | 1 | ½ | ---- | ½ | 1 | ½ | 30 |

* What may be necessary for himself and staff for their public duty.

† The prescribed blank books and printed forms, and the stationery required for their public duty.

Requisitions for authorized stationery are made on Form No. 41, and are not invoiced to nor accounted for by the receiving officers.

Quartermasters use the last line of Abstract H (abstract of stationery issued) to expend such stationery as may have been used in their offices, etc.

To each office desk or table is allowed one inkstand, one paper folder, one ruler, one steel eraser, one piece of india rubber, and four lead pencils. A company commander is entitled to this allowance. Officers when relieved will transfer office stationery to their successors. (A. R., 1024.)

The allowance of lead pencils is a quarterly one.

Necessary stationery for courts and boards will be furnished on requisition of the judge advocate or recorder, approved by the presiding officer. (A. R., 1027.)

### CLOTHING AND EQUIPAGE.

**193.** The clothing allowance for enlisted men is published yearly in a general order from the Headquarters of the Army.

The sizes of the various articles are printed on the back part of Form 57.

Consolidated estimate of clothing and equipage, and the proportionate number of the various sizes, is given in the table below.

All officers making estimates or requisitions for clothing and equipage will conform to regulations and orders fixing allowances.

The following tables show the proportion of sizes to each hundred of the articles.

| Articles. | Sizes and proportions of each. | | | | | | Total. |
|---|---|---|---|---|---|---|---|
| | 6¾ | 6⅞ | 7 | 7⅛ | 7¼ | 7⅜ | |
| Helmets | 6 | 21 | 31 | 26 | 12 | 4 | 100 |
| Campaign hats | 6 | 21 | 31 | 26 | 12 | 4 | 100 |
| Forage caps | 8 | 22 | 30 | 25 | 11 | 4 | 100 |
| Canvas caps | 6 | 21 | 31 | 26 | 12 | 4 | 100 |

| Articles. | Sizes and proportions of each. | | | | | | | | | | | | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| Boots | ---- | ---- | ---- | ---- | 2 | 11 | 32 | 33⅓ | 16 | 4 | 1 | ⅓ | 100 |
| Shoes | ---- | ---- | ---- | ---- | 2 | 11 | 32 | 33⅓ | 16 | 4 | 1 | ⅓ | 100 |
| Uniform dress coats | 10 | 25 | 30 | 25 | 6 | 4 | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Overcoats | 10 | 25 | 30 | 25 | 6 | 4 | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Blouses | 10 | 25 | 30 | 25 | 6 | 4 | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Canvas fatigue coats | 10 | 20 | 30 | 20 | 15 | 5 | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Stable frocks | 15 | 45 | 30 | 10 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Undershirts, knit | 8 | 36 | 38 | 15 | 3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Overshirts, dark-blue flannel | 8 | 36 | 38 | 15 | 3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Trousers, kersey | 5 | 5 | 15 | 15 | 10 | 5 | 10 | 5 | 10 | 10 | 5 | 5 | 100 |
| Trousers, summer | 10 | 20 | 30 | 20 | 15 | 5 | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Trousers, canvas fatigue | 10 | 20 | 30 | 20 | 15 | 5 | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Drawers, canton flannel | 15 | 25 | 35 | 20 | 5 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Canvas mittens | 25 | 45 | 30 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Fur gauntlets | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 30 | 50 | 20 | ---- | 100 |

The sizes furnished require very little, if any, alteration, and estimates should be made as near the exact requirements of the men as possible. (A. R., 1173.)

**194.** Should any of the sizes of clothing specified in the foregoing paragraph prove inadequate, measurements stated upon prescribed blanks will be forwarded with the estimate for the garments.

A certificate that the enlisted man for whom such clothing is intended can not be fitted with the sizes of clothing furnished should accompany each requisition. Additional cost of manufacture, as given in annual price list, will be charged in each case. (A. R., 1174.)

**195.** It would be well if each company commander would have every man in his company measured, and a record of the measurements kept, so that when he makes an estimate of clothing he will have some data on which to base it, and not

trust to guesswork to get it right. Based on the company commander's estimates, the Quartermaster of the regiment makes his consolidated estimate, Form 57, or special requisition, Form 53½. Where there is no time to have the men measured, the above table will be a guide.

To prevent an accumulation of clothing the quartermaster will ask authority to invoice to the depot quartermaster such articles of clothing as are perfectly serviceable and not required for issue to the regiment.

**196.** Whenever articles of clothing of enlisted men have been destroyed upon recommendation of a medical officer to prevent contagion, a gratuitous issue of such articles of clothing will be made to the enlisted men to whom such clothing belonged, upon the certificate of an officer that the clothing was so destroyed upon the recommendation of the medical officer named. (Par. II, Cir. 20, A. G. O., April 4, 1899.)

**197.** By direction of the Secretary of War, clothing drawn in excess of allowance by soldiers discharged without honor will be taken up again on the returns of the quartermaster of the post at which the soldier may be serving, and if new will be reissued; otherwise it will be transferred to the nearest clothing depot for use of general prisoners, unless the particular post may be the one at which prisoners are confined, in which case the clothing will be allowed to remain for use of such prisoners. (G. O. 34, A. G. O., 1900.)

**198.** There will be furnished by the Quartermaster's Department to all duly authorized bands

of the Army the following-named musical instruments, viz: Db piccolo, terz and concert flutes, Eb and Bb cornets, Eb trumpets, Eb and Bb clarionets, Eb altos, Bb trombones (valve or slide), Bb baritones, Eb, Bb, and BBb bassos, bass and snare drums, cymbals, triangles, music stands, and extra parts for the repair of the instruments; also batons with suitable cords and tassels for use of drum majors of all dismounted bands. Mounted bands may be supplied with a pair of kettledrums in lieu of the bass and tenor drums, cymbals, and triangles, and also with altos, trombones, and bassos of helicon shape. A flugelhorn may be furnished in lieu of the Eb trumpet, a euphonium in lieu of one alto, one Eb alto saxophone, and one Eb baritone saxophone in lieu of two cornets; but under no circumstances will more than a complete instrumentation for 28 musicians be supplied. In making requisition for band instruments a statement showing the number and kind on hand and their condition should accompany the same. All the property specified will be accounted for by the quartermaster of the regiment. When any instrument has become unserviceble, it will be submitted to a board of survey. A copy of the proceedings of the board will be forwarded to the Quartermaster General with a view of having the instrument repaired, if practicable, or otherwise disposed of. When an instrument needs minor repairs, involving only a slight expense, and the work can be done in a workmanlike manner in the vicinity of the post, it will not be necessary to submit the instrument to a board of survey. Such repair may

be secured upon the written order of the commanding officer, but a report of the nature of the work and cost involved will be made to the Quartermaster General through proper military channels. (G. O. 45, A. G. O., 1900.)

**199.** Whenever in the opinion of a commanding officer the condition of any silken color, standard, or guidon in the possession of his command has become unserviceable, a board of survey will be appointed to report, for the information of the Secretary of War, its condition and as to the necessity of supplying a new one. If requiring repair, application to have it placed in a serviceable condition should be made to the Quartermaster General. Service colors and guidons will be submitted for the action of an inspector when unfit for further use. Upon receipt of new silken colors, standards, or guidons commanding officers will cause those replaced to be numbered and retained by the organizations to which they belong as mementos of service, a synopsis of which, bearing the same number, will be filed with the records of the organization. (G. O. 41, A. G. O., 1900.)

## ALLOWANCE OF TENTAGE AND EQUIPAGE.

### IN THE FIELD.

**200.** Headquarters of an army corps:

2 wall tents for commanding general.

1 wall tent for every two officers of his staff.

Headquarters of a division:

1 wall tent for commanding general.

1 wall tent for every two officers of his staff.

Headquarters of a brigade:

1 wall tent for the commanding general.

1 wall tent for every two officers of his staff.

The above is the minimum allowance for field service. (G. O. 54, A. G. O., 1898.)

**201.** IN CAMP OR GARRISON.

| | Tents. | | | Axes. | Hatchets. | Spades. | Pickaxes. | Camp kettles. | Mess pans. |
|---|---|---|---|---|---|---|---|---|---|
| | Conical wall. | Wall. | Common. | | | | | | |
| A general officer | ------ | 3 | ---- | 1 | 1 | ---- | ---- | ---- | ---- |
| Field and staff officer above rank of captain | ------ | 2 | ---- | 1 | 1 | ---- | ---- | ---- | ---- |
| Other staff officers or captains | ------ | 1 | ---- | 1 | 1 | ---- | ---- | ---- | ---- |
| Subalterns of companies, to every two | ------ | 1 | ---- | 1 | 1 | ---- | ---- | ---- | ---- |
| To every three foot or mounted men | ------ | ---- | 1 | ---- | ---- | ---- | ---- | ---- | ---- |
| To every fifteen foot or thirteen mounted men | ------ | ---- | ---- | 2 | 2 | 2 | 2 | 2 | 5 |
| To every twenty foot or seventeen mounted men | 1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| For storage of subsistence stores: | | | | | | | | | |
| For each battery or company | ------ | ---- | 1 | ---- | ---- | ---- | ---- | ---- | ---- |
| For each corps, division, or brigade headquarters, one hospital tent, or its equivalent. | | | | | | | | | |
| For each regimental headquarters | ------ | 1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

(G. O. 165, A. G. O., 1899.)

**202.** Tentage for regimental hospital will consist of:

4 hospital tents (2 to be used as wards, 1 as a dispensary and storage, and 1 for the mess).

2 common tents for noncommissioned officers.

3 common tents for privates.

1 common tent for cook tent.

(G. O. 178, A. G. O., Nov. 8, 1898, and G. O. 3, A. G. O., 1899.)

**203.** For each ambulance company :

17 common tents for privates.
2 common tents for noncommissioned officers.

**204.** For each division field hospital :

15 common tents for privates.
2 common tents for noncommissioned officers.
1 common tent for supplies.
Hospital tents on a basis of 6 patients (beds) to each tent.

**205.** Hand litters with slings, to be furnished by the Quartermaster's Department :

1 for each company.
2 for each ambulance.

Requisitions for the necessary articles of camp and garrison equipage, tools, etc., will be based on the official allowances for companies of infantry. (S. O. 76, A. G. O., 1898.)

### ALLOWANCE OF WAGONS, AMBULANCES, HORSES, ETC.

**206.** The following standard of supplies and equipment for field service is published for the information and guidance of troops in the military service of the United States. The allowance is regarded as the minimum for field service.

Headquarters of an army corps :

3 wagons for baggage, etc., or 8 pack mules.
1 two-horse wagon.
1 two-horse spring wagon.
10 extra saddle horses for contingent wants.

Headquarters of a division:

2 wagons for baggage, etc., or 5 pack mules.

1 two-horse spring wagon.

1 two-horse wagon.

5 extra saddle horses for contingent wants.

Headquarters of a brigade:

1 wagon for baggage, or 5 pack mules.

1 two-horse spring wagon.

2 extra saddle horses for contingent wants.

Allowance of transportation for regiment of cavalry: 49 wagons, or 144 pack animals.

Allowance of transportation for battery light artillery: 4 wagons.

Allowance of transportation for regiment of infantry: 25 wagons.

**207.** Supplies to be carried in wagons per company:

10 days' field rations per man.

100 rounds ammunition per soldier.

250 pounds of officers' baggage and supplies.

Tentage.

Grain for animals.

Utensils for each company mess, not to exceed 350 pounds for each troop, battery, or company.

Horseshoes, nails, tools, and medicines for cavalry horses, not to exceed 300 pounds.

To each soldier or civilian employee (compactly rolled in one piece of shelter tent) 1 blanket, 1 poncho, and 1 extra suit of undergarments.

**208.** Whenever the amount of rations or grain varies from the above, the weight to be carried per

6-mule wagon may be increased or diminished, but should not exceed 4,000 pounds, and for 4-mule wagon 3,000 pounds, and, if possible, should be less per wagon.

Whenever obtainable on line of march, full forage will be allowed all animals, the rate of purchase to be regulated by the Quartermaster's Department.

To be carried on the person, or horse: 1 overcoat, 1 piece of shelter tent, 50 rounds of rifle or carbine and 24 rounds of revolver ammunition.

Supplies to be carried on pack mules for one troop of cavalry:

5 days' field rations per man.

100 rounds of ammunition per soldier.

The utensils for each troop of cavalry must not exceed 350 pounds.

The weight of load per aparejo must never exceed 250 pounds, and should, if possible, be less than 200 pounds.

TROOP OF CAVALRY, COMPANY OF INFANTRY, OR LIGHT BATTERY.

| | Troop of cavalry. | Company of infantry. | Light battery. |
|---|---|---|---|
| Field rations, 10 days: Cavalry, 100 men; infantry, 106; artillery, 125 | *Pounds.* 3,640 | *Pounds.* 3,858 | *Pounds.* 4,550 |
| Ammunition, 100 rounds: Cavalry, 100 men; infantry, 106 | 725 | 769 | |
| Officers' baggage and supplies | 250 | 250 | 250 |
| Tentage (7 conical wall for cavalry and infantry, each; 9 for light battery) | 854 | 854 | 1,098 |
| Grain for animals, 10 days, 6 pounds: Cavalry, 115; infantry, 12; artillery, 126 | 6,900 | 720 | 7,560 |
| Utensils for each company mess | 350 | 350 | 350 |
| Horseshoes, nails, tools, and medicines for cavalry and artillery horses | 300 | | 325 |
| Soldiers' baggage: Each 1 blanket, 1 poncho, 1 extra suit of undergarments, and 1 piece of shelter tent | 1,662 | 1,761 | 2,076 |
| Total | 14,681 | 8,562 | 16,211 |

(G. O. 54, A. G. O., May 25, 1898.)

**209.** By direction of the Secretary of War, the following allowance of horses for mounts, wheel transportation, etc., for the Medical Department of the Army in the field is authorized:

HORSES FOR MOUNTS.

| | Hospital steward. | Assistant hospital steward. | Privates. |
|---|---|---|---|
| To each regiment of infantry | 1 | | 1 |
| To each artillery battalion (3 light batteries) | | 3 | 1 |
| To each cavalry regiment | 1 | | 2 |
| To each corps headquarters | 1 | | 2 |
| To each division headquarters | 1 | | 1 |
| To each brigade headquarters | 1 | | 1 |
| To each division ambulance company | 7 | 3 | 12 |
| To each corps reserve ambulance company | 7 | 3 | 12 |
| To each division field hospital | 2 | 2 | 6 |
| To each corps reserve hospital | 2 | 2 | 6 |

WHEEL TRANSPORTATION.

One ambulance to 400 men of the effective force.

One 4-horse wagon to 600 men of the effective force.

One 4-horse wagon to each brigade.

Horses and wheel transportation will be furnished by the Quartermaster's Department, and horse equipments by the Ordnance Department. (G. O. 76, A. G. O., 1898.)

Two 4-mule wagons will be furnished for each hospital. (G. O. 178, A. G. O., 1898.)

### CARE OF ANIMALS, WAGONS, AND HARNESS IN THE FIELD.

**210.** In order that animals, wagons, and harness should be always ready for service, it is very important that the quartermaster should give them his personal attention. He can not delegate this responsibility to any one else, for he alone will be

held responsible for their condition. He should give proper orders regarding the care of this property, and should see that his orders are executed.

ANIMALS.

**211.** Animals suffer from neglect on the part of those in immediate charge of them, either from failure to water and feed them, or by not examining their feet and promptly attending to slight injuries.

In the field all animals should be fed night and morning, the bulk of the feed being given at night, as the animals have more time to eat it than they have in the morning. The forage allowance is ample, and when animals are hard-worked this allowance should not be cut down.

Water the animals before feeding, and at least once during the day if it is practicable to do so. Many teamsters after a hard day's work neglect to water their animals, so that it is especially important to see that this duty is done.

Make it a rule that the animals should be fed and watered before the men get their meals.

Have all animals thoroughly groomed at least once a day. In camp this should be done twice a day.

Feed the allowance of salt twice a week. When animals eat the wagon beds and feed boxes, or lick one another's hide, it is a sure indication that they are not getting enough salt.

The feet should be examined and cleaned every night. In a hot, dry country, if there is time to do so, their fore-feet should be poulticed with flaxseed twice a month.

Great attention should be paid to shoeing the animals. The blacksmith should fit the shoe to the foot, not the foot to the shoe. Have the animals shod as soon as they need it. The time for shoeing will be governed by the amount of work performed and the character of the roads. Ordinarily once in three or four weeks will be sufficient. Teamsters should report to the quartermaster the condition of the shoes, and when camp is reached the blacksmith should attend to the animals at once. When it is necessary to have an animal shod on the march, turn the team out of the column, and instruct the teamster where and how to join the train.

Park the train at night and tie the animals to the wagons so that the grain may be fed to them in the feed box. Where a picket rope is used, see that it is securely fastened so as to hang about 4 feet from the ground, and that the halter is sufficiently long to allow the animal to lie down.

Animals' shoulders often become sore and the animals rendered unserviceable from the fact that the teamsters, when they take off the harness at night, instead of hanging it on a tree or putting it in the wagon, will throw it on the ground and make no attempt to clean the harness in the morning before using it. In consequence, dirt and mud get on the collars and harness and chafe the skin, resulting in sores that often take weeks to heal.

It would be well to wash the shoulders frequently in strong salt water.

Draft animals should not be driven out of a walk except in cases of urgent necessity. Exception is made in case of animals used on ambulances and spring wagons.

Impress upon teamsters that it is necessary to be kind to all animals. Discharge any man who kicks an animal or strikes him with a club or otherwise mistreats him.

WAGONS.

**212.** When wagons are used every day, especially in a sandy country, have the wheels greased once a day. One to one and one-half pounds of axle grease per wheel per month will be found to be ample in all climates.

It is of the utmost importance that the wheels should be kept thoroughly greased at all times, or the axle will be injured and the axle boxes worn out. Always carry with the wagon train a few extra wagon parts, so that minor repairs may be made at once. A list of such parts is given in another part of book.

The wagons should be inspected morning and evening to ascertain if anything is broken about them, that the tires are tight, axle nuts well screwed on, etc.

Scrape off all old grease before putting on fresh grease.

HARNESS.

**213.** Harness should be examined every day. Note particularly if any stitches are broken, if any parts of the leather are worn thin, badly cracked, or cut, and if any of the buckles, toggles, snaps, hames, chains, bits, and rings are cracked or broken.

Should any defect or weakness be noticed, have the same remedied at once.

Do not allow the harness to be thrown on the ground where it will get muddy and dirty, for when the mud hardens and rubs against the skin sores will result that may render the animal unserviceable for weeks.

In stitching harness, see that knots are not left on any part of the leather which may come in contact with the animal's body.

Avoid these knots by using two double or back stitches at the beginning and end of each row of stitching.

Sew the harness, and do not use rivets, especially if the leather has plenty of life and is not extra solid. Use the best linen shoe thread with wax ends in sewing.

The wax should be the spring, summer, or winter kind, depending on the season. Buckle the collars when removed from the animals.

CLEANING HARNESS.

**214.** Harness should be cleaned at least twice a month, and whenever it gets muddy.

For this purpose use a bucket, lukewarm water, sponge, harness soap, harness dressing, neat's-foot oil, and lampblack.

For ordinary cleaning the following instructions should be observed:

Provide a rack to hang the harness on. Where no better arrangement is on hand, insert one end of the wagon pole between the spokes of one of the hind wheels, above the hub, and strap it to the axle.

Hang a set of harness on the pole, dampen the sponge in clean water and pass it over the harness until the dirt has become soft.

Rinse out the sponge as often as necessary, and replace the dirty water with clean water frequently.

Now rub the sponge on the harness soap until you obtain a good lather, then give the harness a good heavy coating of it, and keep rubbing the harness until all dirt is removed. In some instances it may be necessary to use a thin piece of wood to remove the dirt. After the harness is thoroughly clean, work up a very thick lather, coat the leather parts of the harness with it, and allow it to dry without further rubbing.

After the lather has been absorbed and the leather is dry, put on a light coat of harness dressing. To do this, use a perfectly clean sponge, touch the harness lightly, just enough to spread the dressing, and do not rub. Keep the dressing in an air-tight package when not in use.

When the harness has not been cleaned for some time, and is hard, it should first be cleaned as described above. Afterwards take a pint of neat's-foot oil for each single set of harness to be cleaned, pour it into a pan and mix with it lampblack in the proportion of one teaspoonful to each pint of oil, and stir this mixture until it has a glossy black appearance. In cold weather heat the oil until it is lukewarm, but never hot, before using on harness. Apply the mixture with a small sponge, rubbing it well in. Allow about forty-eight hours to elapse before using harness again. In cold weather allow harness, after being thus oiled, to hang near a fire for an hour.

After the leather is thoroughly dried, apply harness dressing as described above.

GENERAL INFORMATION CONCERNING WAGONS.

**215.** List of articles to be carried on each wagon:

1 ax, front of wagon.
2 axle nuts, extra, in tool box.
1 bucket, G. I., under rear end of wagon.
½ pc. buckskin, in tool box.
1 brush, horse, in tool box.
1 comb, curry, in tool box.
2 cans grease, axle, in tool box.
2 hames, extra, under wagon.
1 lantern, in bucket.
Nails, horseshoe, extra, in tool box.
3 open links, in tool box.
1 pole, wagon, extra, on side of wagon.
1 pickax, on side of wagon.
1 reach, extra, on side of wagon.
150 feet rope, ⅝ or ½ inch, on side of wagon.
1 spade, on side of wagon.
3 straps, hame, in tool box.
Staps, extra, in tool box.
3 strings, hame, in tool box.
1 shoe for each animal, previously fitted to hoof, in tool box.
2 singletrees, under wagon.
1 doubletree, under wagon.
1 wrench, wagon, in tool box.
Wire, stove, in tool box.

NUMBER AND SIZES OF BOLTS, RIVETS, AND SCREWS USED IN ARMY, ESCORT, AND FARM WAGONS, AMBULANCES, AND DOUGHERTY SPRING WAGONS.

**216.** **Army Wagon.**

Carriage bolts:

67 bolts, diameter ¼ inch, length 1½ inches.
2 bolts, diameter ¼ inch, length 2½ inches.

Carriage bolts—Continued.

4 bolts, diameter $\frac{1}{4}$ inch, length 3 inches.
4 bolts, diameter $\frac{5}{16}$ inch, length $2\frac{1}{2}$ inches.
4 bolts, diameter $\frac{5}{16}$ inch, length 4 inches.
2 bolts, diameter $\frac{3}{8}$ inch, length 3 inches.
20 bolts, diameter $\frac{3}{8}$ inch, length $3\frac{1}{2}$ inches.
4 bolts, diameter $\frac{3}{8}$ inch, length $4\frac{1}{2}$ inches.
4 bolts, diameter $\frac{7}{16}$ inch, length $3\frac{1}{2}$ inches.
1 bolt, diameter $\frac{7}{16}$ inch, length 13 inches.
8 bolts, diameter $\frac{1}{2}$ inch, length 4 inches.
4 bolts, diameter $\frac{1}{2}$ inch, length $4\frac{1}{2}$ inches.
16 bolts, diameter $\frac{1}{2}$ inch, length 6 inches.
4 bolts, diameter $\frac{1}{2}$ inch, length $6\frac{1}{2}$ inches.
1 bolt, diameter $\frac{1}{2}$ inch, length 8 inches.
1 bolt, diameter $\frac{1}{2}$ inch, length 12 inches.
8 bolts, diameter $\frac{1}{2}$ inch, length 13 inches.
2 bolts, diameter $\frac{1}{2}$ inch, lenght 28 inches.
2 bolts, diameter $\frac{5}{8}$ inch, length 2 inches.
6 bolts, diameter $\frac{5}{8}$ inch, length 28 inches.
1 bolt, diameter $\frac{7}{8}$ inch, length 13 inches.

Tire bolts:

36 bolts, diameter $\frac{5}{16}$ inch, length $3\frac{1}{2}$ inches.
6 bolts, diameter $\frac{5}{16}$ inch, length 4 inches.
2 bolts, diameter $\frac{5}{16}$ inch, length 5 inches.

Rivets:

52 rivets, diameter $\frac{1}{4}$ inch, length $2\frac{1}{2}$ inches.

Wood screw, flathead:

34 screws, No. 10, 1-inch.
10 screws, No. 12. $1\frac{1}{2}$-inch.

**217.** **Escort Wagon.**

Carriage bolts:

16 bolts, diameter $\frac{1}{4}$ inch, length $1\frac{1}{2}$ inches.
14 bolts, diameter $\frac{5}{16}$ inch, length $1\frac{3}{4}$ inches.

Carriage bolts—Continued.

12 bolts, diameter $\frac{5}{16}$ inch, length 2 inches.
22 bolts, diameter $\frac{5}{16}$ inch, length $2\frac{1}{2}$ inches.
20 bolts, diameter $\frac{3}{8}$ inch, length 3 inches.
2 bolts, diameter $\frac{3}{8}$ inch, length 8 inches.
4 bolts, diameter $\frac{1}{2}$ inch, length 5 inches.
8 bolts, diameter $\frac{1}{2}$ inch, length 11 inches.
32 bolts, diameter $\frac{5}{8}$ inch, length 4 inches.

Tire bolts:

6 bolts, diameter $\frac{1}{4}$ inch, length $2\frac{1}{2}$ inches.
10 bolts, diameter $\frac{1}{4}$ inch, length $2\frac{3}{4}$ inches.
40 bolts, diameter $\frac{1}{4}$ inch, length 3 inches.

Iron rivets:

50 rivets, diameter $\frac{3}{16}$ inch, length $1\frac{1}{2}$ inches.
34 rivets, diameter $\frac{1}{4}$ inch, length $1\frac{1}{2}$ inches.
10 rivets, diameter $\frac{1}{4}$ inch, length $2\frac{1}{2}$ inches.

No wood screws.

**218.** **Ordinary Farm Wagon.**

Carriage bolts:

18 bolts, diameter $\frac{1}{4}$ inch, length $2\frac{1}{4}$ inches.
4 bolts, diameter $\frac{1}{4}$ inch, length $2\frac{1}{2}$ inches.
4 bolts, diameter $\frac{1}{4}$ inch, length $4\frac{1}{2}$ inches.
10 bolts, diameter $\frac{5}{16}$ inch, length $1\frac{1}{2}$ inches.
4 bolts, diameter $\frac{5}{16}$ inch, length 2 inches.
16 bolts, diameter $\frac{5}{16}$ inch, length $2\frac{1}{2}$ inches.
8 bolts, diameter $\frac{5}{16}$ inch, length $3\frac{1}{4}$ inches.
2 bolts, diameter $\frac{5}{16}$ inch, length 4 inches.
2 bolts, diameter $\frac{3}{8}$ inch, length 1 inch.
4 bolts, diameter $\frac{3}{8}$ inch, length $1\frac{1}{2}$ inches.
2 bolts, diameter $\frac{3}{8}$ inch, length $2\frac{1}{2}$ inches.
8 bolts, diameter $\frac{3}{8}$ inch, length 3 inches.
8 bolts, diameter $\frac{3}{8}$ inch, length 4 inches.

Carriage bolts—Continued.

2 bolts, diameter $\frac{3}{8}$ inch, length $4\frac{1}{2}$ inches.
4 bolts, diameter $\frac{3}{8}$ inch, length 5 inches.
2 bolts, diameter $\frac{3}{8}$ inch, length 7 inches.
2 bolts, diameter $\frac{3}{8}$ inch, length 12 inches.
2 bolts, diameter $\frac{3}{8}$ inch, length 14 inches.
4 bolts, diameter $\frac{1}{2}$ inch, length $1\frac{1}{2}$ inches.
4 bolts, diameter $\frac{1}{2}$ inch, length 2 inches.
2 bolts, diameter $\frac{1}{2}$ inch, length 3 inches.
1 bolt, diameter $\frac{1}{2}$ inch, length 9 inches.
1 bolt, diameter $\frac{1}{2}$ inch, length 10 inches.
1 bolt, diameter $\frac{5}{8}$ inch, length 12 inches.
1 bolt, diameter $\frac{3}{4}$ inch, length 5 inches.

Tire bolts:

8 bolts, diameter $\frac{5}{16}$ inch, length 3 inches.

Rivets:

64 rivets, diameter $\frac{1}{4}$ inch, length $1\frac{1}{2}$ inches.
50 rivets, diameter $\frac{1}{4}$ inch, length 2 inches.
12 rivets, diameter $\frac{1}{4}$ inch, length $2\frac{1}{2}$ inches.
4 rivets, diameter $\frac{1}{4}$ inch, length 3 inches.
18 rivets, diameter $\frac{1}{4}$ inch, length $3\frac{1}{2}$ inches.

**219.** **Hospital Ambulances.**

Carriage bolts:

16 bolts, diameter $\frac{3}{16}$ inch, length $1\frac{1}{2}$ inches.
6 bolts, diameter $\frac{1}{4}$ inch, length $1\frac{1}{2}$ inches.
10 bolts, diameter $\frac{1}{4}$ inch, length $2\frac{1}{2}$ inches.
4 bolts, diameter $\frac{5}{16}$ inch, length $1\frac{1}{2}$ inches.
6 bolts, diameter $\frac{5}{16}$ inch, length 2 inches.
6 bolts, diameter $\frac{5}{16}$ inch, length $2\frac{1}{2}$ inches.
34 bolts, diameter $\frac{5}{16}$ inch, length 3 inches.
16 bolts, diameter $\frac{3}{8}$ inch, length 3 inches.
6 bolts, diameter $\frac{3}{8}$ inch, length $3\frac{1}{2}$ inches.

Carriage bolts—Continued.

2 bolts, diameter $\frac{3}{8}$ inch, length 4 inches.
2 bolts, diameter $\frac{3}{8}$ inch, length $4\frac{1}{2}$ inches.
2 bolts, diameter $\frac{3}{8}$ inch, length 5 inches.
2 bolts, diameter $\frac{7}{16}$ inch, length $3\frac{1}{2}$ inches.
2 bolts, diameter $\frac{7}{16}$ inch, length $4\frac{1}{2}$ inches.

Tire bolts:

18 bolts, diameter $\frac{1}{4}$ inch, length 2 inches.
50 bolts, diameter $\frac{1}{4}$ inch, length $2\frac{1}{2}$ inches.
8 bolts, diameter $\frac{5}{16}$ inch, length $2\frac{1}{2}$ inches.
2 bolts, diameter $\frac{3}{8}$ inch, length 3 inches.
4 bolts, diameter $\frac{3}{8}$ inch, length $4\frac{1}{2}$ inches.
6 bolts, diameter $\frac{3}{8}$ inch, length $7\frac{1}{2}$ inches.

Rivets:

24 rivets, diameter $\frac{1}{4}$ inch, length $1\frac{1}{4}$ inches.
32 rivets, diameter $\frac{1}{4}$ inch, length $2\frac{1}{2}$ inches.

Flat-head wood screws:

24 screws, No. 12, length $1\frac{1}{2}$ inches.

Rivet-head screws:

36 screws, No. 9, length $1\frac{1}{4}$ inches.

**220.** **Dougherty Spring Wagon.**

Carriage bolts:

12 bolts, diameter $\frac{1}{4}$ inch, length $2\frac{1}{4}$ inches.
12 bolts, diameter $\frac{1}{4}$ inch, length $2\frac{1}{2}$ inches.
24 bolts, diameter $\frac{5}{16}$ inch, length $1\frac{3}{4}$ inches.
18 bolts, diameter $\frac{5}{16}$ inch, length 2 inches.
2 bolts, diameter $\frac{5}{16}$ inch, length $2\frac{3}{4}$ inches.
2 bolts, diameter $\frac{3}{8}$ inch, length $2\frac{1}{2}$ inches.
16 bolts, diameter $\frac{3}{8}$ inch, length $3\frac{1}{2}$ inches.
4 bolts, diameter $\frac{3}{8}$ inch, length $4\frac{1}{2}$ inches.
2 bolts, diameter $\frac{3}{8}$ inch, length 5 inches.
2 bolts, diameter $\frac{3}{8}$ inch, length $8\frac{1}{2}$ inches.

Tire bolts:

50 bolts, diameter ¼ inch, length 2½ inches.
6 bolts, diameter ⅝ inch, length 3 inches.
2 bolts, diameter ⅝ inch, length 4½ inches.
2 bolts, diameter ⅝ inch, length 5 inches.
2 bolts, diameter ⅝ inch, length 6½ inches.

Rivets:

24 rivets, diameter ¼ inch, length 1½ inches.

Flat-head wood screws:

24 screws, No. 12, length 1½ inches.

### SUPPLIES NEEDED BY A NEW REGIMENT IN THE FIELD.

**221.** By General Orders Nos. 54 and 76 of 1898, Adjutant General's Office, a regiment of infantry is allowed the following transportation: Twenty-five 6-mule wagons, 2 horses for Hospital Corps, 3 ambulances, 2 4-mule wagons, or a total of 170 mules and 2 horses, and all requisitions for supplies which follow will have reference to the authorized wagon and animal transportation of an infantry regiment.

In addition to the public animals there will be about 18 private horses of the field and staff.

**222.** To enable a quartermaster of a regiment to submit a proper requisition for supplies when the regiment is organized, his attention is invited to the following requisition for a three months' supply for a new regiment of infantry. This requisition does not include articles of clothing and equipage, stationery, nor veterinary supplies.

Class 5 (see Form No. 27):

4 tables, office.

Class 6 (see Form No. 27):

3 ambulances, R. C.
6 brooms, stable.
30 brushes, horse.
30 combs, curry.
6 forks, stable.
170 halters, head and halter chains.
6 s. s. harness, ambulance, lead.
6 s. s. harness, ambulance, wheel.
54 s. s. harness, wagon, lead.
50 s. s. harness, wagon, swing.
54 s. s. harness, wagon, wheel.
2 horses.
170 mules—54 lead, 50 swing, and 54 wheel.
4 paulins.
25 wagons, army, complete.
2 wagons, escort, complete.

[NOTE.—A 4-mule set of ambulance harness includes 1 pair of lead lines, 1 pair of wheel lines, 1 whipstock, and 1 whiplash. A 6-mule set of harness includes a saddle, jerk line, checkrein, jockey stick, and blacksnake whip.

An army wagon, complete, includes a fifth chain with stretcher, 6 wagon bows, ridgepole, wagon cover, doubletree and 2 singletrees, and extra kingbolt, and 2 extra singletrees, feed box, and brake.

An escort wagon, complete, includes a feed box, 6 wagon bows, ridgepole, 1 double and 2 single trees, axle wrench, tar pot, extra kingbolt, 2 extra nuts for axle, a lead bar with stretcher chains and singletrees attached, and a brake.

An ambulance, complete, includes tool box, 2 water tanks, 2 candle lamps, brake, inside seats, 2 litters, 1 double and 2 single trees, 1 monkey wrench, 1 extra kingbolt, 2 extra axle nuts, one each of right and left hand threads.]

**223.** Blacksmith's and farrier's tools:

1 anvil, small.
1 apron.

Blacksmith's and farrier's tools—Continued.

2 chisels, cold, and handled.
1 chisel, hot (cleaver).
1 chisel, cold, hand.
1 clinch cutter (buffer).
1 clinch iron.
1 dividers.
1 file, 12-inch flat bastard.
1 forge, portable.
1 hammer, hand, ball pein.
1 hammer, riveting.
1 hammer, shoeing.
1 hammer, sledge.
1 hardie.
1 knife, farrier's.
1 nippers, pair.
1 nippers, hoof, pair.
1 pinchers, pair.
1 pritchel.
3 punches, round, hand, assorted.
6 rasps, 16-inch.
1 set stocks and dies, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, and $\frac{3}{4}$ inch.
1 tongs, shoeing, pair.
2 tongs, large, pairs.
1 vise, small.
1 wrench, monkey, 8-inch.
1 wrench, monkey, 12-inch.
1 wrench, S.

**224.** Wheelwright's and carpenter's tools:

1 ax, hand.
1 auger, hollow.
8 bits, press drill, one each $\frac{3}{16}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, and 1 inch.

Wheelwright's and carpenter's tools—Cont'd.

1 bit, screw-driver, for brace.
1 brace, ratchet.
1 calipers, pair.
8 chisels, firmer, ¼, ⅜, ½, ⅝, ¾, 1, 1½, and 2 inch.
6 files, 5-inch saw, taper.
1 grindstone and fixtures.
1 gauge, thumb, mortise.
1 hammer, claw.
1 knife, drawing.
1 oiler.
3 planes, one each smooth, jack, and jointer.
1 rasp, wood, 12-inch.
1 rule, 2-foot.
1 saw, crosscut, hand.
1 saw, rip, hand.
1 set saws, compass, with handles (three in set).
1 screw-driver, hand.
1 set, saw.
1 spoke pointer.
1 square, try.
1 square, steel, 2-foot.
1 stone, oil.
1 vise, block.
1 wrench, monkey, 10-inch.

**225.** Saddler's tools:

1 awl, collar.
1 awl, round.
1 bench, folding, 72 by 24 inches, with legs 37 inches long.

Saddler's tools—Continued.

18 blades, awl, and handles, 3 each of six sizes.
1 brush, glue, small.
1 can, oil, small.
1 chest, tool, saddler's combination.
1 chisel, cold.
1 creaser, iron.
1 cup, tin, pint.
1 dividers, pair.
1 file, rat-tail.
1 hammer, riveting.
1 hammer, shoe.
1 hammer, tack.
1 horse, stitching.
1 knife, gauge.
1 knife, head.
1 knife, round.
1 knife, shoe.
1 nippers, pair, medium.
1 punch, revolving, six tubes.
2 punches, round, one each Nos. 2 and 9.
1 pliers, pair, small.
1 rule, 36-inch.
1 screw-driver, small.
1 set, rivet.
1 shears, pair.
1 slicker, glass.
1 stone, oil.
2 thimbles.
1 tickler.
1 tool, claw.
1 tool, edge, common.
1 vise, small.

**226.** Miscellaneous tools:

30 buckets, G. I.
1 crowbar.
2 jacks, wagon.
48 lanterns.
6 padlocks.
1 pot, marking, and brush.
1 tape-line.

**227.** Miscellaneous stores that can be expended:

6 bits, bridle.
500 bolts, carriage, size depends on kind of wagon used.
50 bolts, tire, size depends on kind of wagon used.
1 bolt, king, extra, for each wagon.
5 pounds borax.
24 buckles, roller, japanned, No. 50 or 72, 2-inch.
12 buckles, roller, japanned, No. 50 or 72, 1½-inch.
36 buckles, roller, japanned, No. 50 or 72, 1¼-inch.
36 buckles, roller, japanned, No. 50 or 72, 1-inch.
48 buckles, roller, japanned, No. 50 or 72, ⅞-inch.
36 buckles, roller, japanned, No. 50 or 72, ¾-inch.
12 buckles, roller, japanned, No. 50 or 72, ⅝-inch.
6 buckles, trace, two loops, barrel shape, japanned, 1¾-inch.
12 buckles, center bar, brass, ⅝-inch.

Miscellaneous stores, etc.—Continued.

12 buckles, center bar, brass, $\frac{3}{4}$-inch.
12 buckles, center bar, brass, $\frac{7}{8}$-inch.
100 pounds calks, toe, No. 2.
4 chains, breast.
8 chains, trace.
10 clevises for doubletrees.
24 clips, hame.
600 pounds coal, blacksmith.
10 gallons dressing, harness.
225 pounds grease, axle.
6 hasps and staples.
12 pairs hinges, 6-inch, strap.
10 pounds iron, round, $\frac{1}{4}$-inch.
25 pounds iron, round, $\frac{5}{16}$-inch.
25 pounds iron, round, $\frac{3}{8}$-inch.
30 pounds iron, round, $\frac{1}{2}$-inch.
40 pounds iron, round, $\frac{5}{8}$-inch.
50 pounds iron, round, $\frac{3}{4}$-inch.
10 pounds iron, flat, 1 by $\frac{1}{8}$-inch.
10 pounds iron, flat, $1\frac{1}{2}$ by $\frac{1}{8}$-inch.
15 pounds iron, flat, 2 by $\frac{1}{8}$ inch.
15 pounds iron, flat, 1 by $\frac{1}{4}$ inch.
20 pounds iron, flat, $1\frac{1}{4}$ by $\frac{3}{8}$ inch.
20 pounds iron, flat, 1 by $\frac{1}{2}$ inch.
20 pounds iron, flat, $1\frac{1}{4}$ by $\frac{1}{2}$ inch.
20 pounds iron, flat, $1\frac{1}{2}$ by $\frac{1}{2}$ inch.
25 pounds iron, flat, $2\frac{1}{2}$ by $\frac{3}{8}$ inch.
10 irons, rub.
2 pounds lampblack.
75 pounds leather, harness.
20 pounds leather, bridle.
3 sides leather, lace.

Miscellaneous stores, etc.—Continued.

1 side leather, cushion.
100 links, open, No. 2 wire, ten links to foot.
50 pounds nails, 8-penny.
50 pounds nails, 10-penny.
25 pounds nails, horseshoe, No. 5.
25 pounds nails, horseshoe, No. 6.
50 pounds nails, horseshoe, No. 7.
6 papers needles, harness, two each Nos. 2, 3, and 4.
1 paper needles, glover's, No. 4.
2 pounds nuts, blank, $\frac{3}{8}$-inch.
2 pounds nuts, blank, $\frac{1}{2}$-inch.
5 pounds nuts, blank, $\frac{5}{8}$-inch.
5 pounds nuts, blank, $\frac{3}{4}$-inch.
15 gallons oil, neat's-foot.
72 rings, open, 2-inch, No. 2 iron.
100 rings, 2-inch, japanned, No. 2 iron.
50 rings, $1\frac{1}{2}$-inch, japanned, No. 2 iron.
24 rings, 4-inch, japanned, No. 3 iron.
6 pounds rivets and burrs, copper, No. 8, one each $\frac{3}{8}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, and two of $\frac{1}{2}$-inch.
2 pounds rivets, iron, 2 by $\frac{3}{16}$ inch.
2 pounds rivets, iron, 2 by $\frac{1}{4}$ inch.
2 pounds rivets, iron, 3 by $\frac{1}{4}$ inch.
1 coil rope, $\frac{3}{8}$-inch.
1 coil rope, $\frac{1}{2}$-inch.
1 coil rope, $\frac{3}{4}$-inch.
200 feet rope, picket, $1\frac{1}{4}$-inch.
1 pound screws, brass, $\frac{3}{4}$-inch, No. 9.
1 gross screws, wood, flat head, 1-inch, No. 10.

Miscellaneous stores, etc.—Continued.

1 gross screws, wood, flat head, 1½-inch, No. 12.
25 pounds shoes, horse, No. 2, front.
25 pounds shoes, horse, No. 2, hind.
25 pounds shoes, horse, No. 3, front.
25 pounds shoes, horse, No. 3, hind.
25 pounds shoes, horse, No. 4, front.
25 pounds shoes, horse, No. 4, hind.
200 pounds shoes, mule, No. 1.
400 pounds shoes, mule, No. 2.
500 pounds shoes, mule, No. 3.
300 pounds shoes, mule, No. 4.
12 snaps, harness, German bronzed, 1½-inch.
24 snaps, harness, German bronzed, 1¼-inch.
24 snaps, harness, German bronzed, 1-inch.
60 pounds soap, harness.
6 pounds sponge, coarse.
36 squares, halter, japanned, 1¼ by 1½ inch.
24 staples and burrs, hame.
6 feet steel, octagon, ⅝-inch.
6 feet steel, square, ¾-inch.
100 strings, hame.
4 papers tacks, cut, 4-ounce.
2 papers tacks, cut, 12-ounce.
4 pounds thread, shoe, Barbour's No. 10.
½ pound thread, saddler's, ¼ each black and white.
1 dozen toggles, trace, 1¾-inch, japanned.
1 pound washers, ¼-inch.

Miscellaneous stores, etc.—Continued.

1 pound washers, $\frac{5}{16}$-inch.
1 pound washers, $\frac{3}{8}$-inch,
2 pounds washers, $\frac{5}{8}$-inch.
2 pounds washers, $\frac{3}{4}$-inch.
$\frac{1}{2}$ pound wax, bees.
1 pound wax, black.

The following articles should be at a depot for making necessary repairs to wagons, harness, and ambulances:

**228.** Blacksmith's tools:

1 bolt clipper for every two blacksmiths.
1 drill, post, large, with set of twist drills from $\frac{3}{16}$ to 1 inch.
1 grindstone.
1 jackscrew.
2 mandrels.
2 swage blocks.
2 screw plates, to cut from $\frac{1}{4}$ to 1 inch.
1 screw plate, to cut from $\frac{1}{8}$ to $\frac{3}{8}$ inch.
1 saw, hack.
1 tire shrinker.
1 tire bender.

**229.** Each blacksmith should have the following tools:

1 anvil, weight 200 pounds.
1 apron.
1 bellows, 44-inch.
1 brace, ratchet.
4 bits, gimlet, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, and $\frac{5}{16}$.
8 bits, wood, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, and $\frac{3}{4}$.
1 bit, screw-driver.
1 calipers.

Blacksmith's tools—Continued.

1 chisel (or cutter), cold, with handle.
1 chisel (or cutter), hot, with handle.
2 clamps, steel, open, 6-inch.
2 clamps, steel, open, 10-inch.
1 dividers.
9 drills, twist, for bit brace, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, and $\frac{3}{4}$.
2 sets fullers, top and bottom, $\frac{3}{8}$ and $\frac{5}{8}$.
7 hammers, 1 each—
    ball pein;
    cross pein;
    riveting;
    shoeing;
    set;
    sledge;
    flatter.
1 hardie.
1 iron, tuyere.
1 nippers.
1 pinchers.
4 punches, with handles, round, $\frac{3}{8}$, $\frac{5}{8}$, $\frac{3}{4}$, and 1 inch.
4 punches, with handles, square, $\frac{3}{8}$, $\frac{5}{8}$, $\frac{3}{4}$, and 1 inch.
6 punches, hand, assorted.
1 punch, center.
1 rule, 2-foot.
1 screw-driver.
10 sets swages, top and bottom, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{8}$, $1\frac{1}{4}$, $1\frac{3}{8}$, and $1\frac{1}{2}$ inch.
1 square, 2-foot.
6 pairs tongs, assorted.

Blacksmith's tools—Continued.

8 tools, heading, round, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, and 1 inch.

5 tools, heading, square, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, and $\frac{7}{8}$ inch.

1 traveler.

3 wrenches, monkey, large, medium, and small.

2 wrenches, S.

1 vise, about 85 pounds.

**230.** Blacksmith's materials:

Iron, round, all sizes from $\frac{3}{16}$ to $1\frac{1}{4}$ inch.

Iron, half-round, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, and $\frac{3}{4}$ inch.

Iron, square, all sizes from $\frac{3}{8}$ to $1\frac{3}{8}$ inch.

Iron, oval, $\frac{1}{2}$, $\frac{5}{8}$, and $\frac{3}{4}$ inch.

Iron, half-oval, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, and 1 inch.

Iron, Norway—

$1\frac{1}{4}$ by $\frac{3}{4}$ inch.
$1\frac{1}{4}$ by 1 inch.
$1\frac{1}{2}$ by $\frac{3}{4}$ inch.
2 by $\frac{1}{2}$ inch.
2 by $\frac{3}{4}$ inch.
2 by $\frac{5}{8}$ inch.
2 by $\frac{1}{2}$ inch.

Iron, flat—

$\frac{3}{4}$ by $\frac{1}{8}$ inch.
1 by $\frac{1}{8}$ inch.
1 by $\frac{1}{4}$ inch.
1 by $\frac{3}{8}$ inch.
1 by $\frac{1}{2}$ inch.
$1\frac{1}{4}$ by $\frac{1}{8}$ inch.
$1\frac{1}{4}$ by $\frac{1}{4}$ inch.
$1\frac{1}{4}$ by $\frac{3}{8}$ inch.

Blacksmith's materials—Continued.

Iron, flat—Continued.

1¼ by ½ inch.
1¼ by ⅝ inch.
1⅜ by ¼ inch.
1⅜ by ⅜ inch.
1½ by ⅛ inch.
1½ by ⅜ inch.
1½ by ½ inch.
1¾ by ⅛ inch.
2 by ⅛ inch.
2 by ¼ inch.
2 by ⅜ inch.
2½ by ⅛ inch.
2½ by ⅜ inch.
2¾ by ⅛ inch.
3 by ⅛ inch.
3 by ⅜ inch.
3½ by ⅛ inch.
4 by ⅛ inch.
4 by ⅜ inch.

Iron, tire—

1½ by ½ inch.
1½ by ⅝ inch.
2 by ⅝ inch.
2½ by ⅝ inch.
3 by ⅝ inch.
3½ by ⅝ inch.

[NOTE.—Tire iron to be round-edged, and the 2 and 2½ inch 16 feet long, for use on hind wheels of escort and army wagons.]

Steel, spring, 1¼, 1⅜, 1½, 1¾, and 2 inch.

Steel, cast—

1 by ¼ inch.

Blacksmith's materials—Continued.

Steel, cast—Continued.

$1\frac{1}{2}$ by $\frac{1}{4}$ inch.
$1\frac{1}{2}$ by $\frac{3}{8}$ inch.
$1\frac{1}{2}$ by $\frac{1}{2}$ inch.
$1\frac{1}{2}$ by $\frac{5}{8}$ inch.
Square, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{4}$, $1\frac{3}{8}$, and $1\frac{1}{2}$ inch.
Octagon, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{8}$, and $1\frac{1}{4}$ inch.
Round, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, and $\frac{3}{4}$ inch.

Bolts, carriage, including nuts—

$\frac{3}{16}$ by 1 to 3 inch.
$\frac{1}{4}$ by $1\frac{1}{4}$ to 6 inch.
$\frac{5}{16}$ by $1\frac{1}{2}$ to 10 inch.
$\frac{3}{8}$ by $1\frac{1}{2}$ to 12 inch.
$\frac{7}{16}$ by 2 to 9 inch.
$\frac{1}{2}$ by $1\frac{1}{2}$ to 14 inch.
$\frac{5}{8}$ by 2 to 12 inch.
$\frac{3}{4}$ by $4\frac{1}{4}$ to 13 inch.

Bolts, machine—

$\frac{3}{8}$ by $1\frac{1}{2}$ to 6 inch.
$\frac{7}{16}$ by $1\frac{1}{2}$ to 6 inch.
$\frac{1}{2}$ by $1\frac{1}{2}$ to 6 inch.
$\frac{5}{8}$ by 2 to 6 inch.
$\frac{5}{16}$ by $1\frac{1}{2}$, $1\frac{3}{4}$, and 2 inch.
$\frac{3}{4}$ by 4 to 6 inch.

Bolts, tire—

$\frac{3}{16}$ by $1\frac{1}{2}$ to 3 inch.
$\frac{1}{4}$ by $1\frac{1}{2}$ to 3 inch.
$\frac{5}{16}$ by 2 to 4 inch.
$\frac{3}{8}$ by $2\frac{1}{2}$ to 6 inch.
$\frac{1}{2}$ by 3 to 8 inch.

Blacksmith's materials—Continued.

Bolts, stove—

$\frac{3}{16}$ by $\frac{3}{4}$ to $1\frac{1}{4}$ inch.

$\frac{1}{4}$ by 1 to $2\frac{1}{2}$ inch.

$\frac{5}{16}$ by 1 to 3 inch.

Bolts, T head, $\frac{1}{4}$ by $1\frac{1}{2}$ to $2\frac{1}{2}$ inch.

Bolts, king and queen.

Screws, lag or coach, gimlet point—

$\frac{5}{16}$ by 2 to 4 inch.

$\frac{3}{8}$ by 3 to 4 inch.

$\frac{1}{2}$ by 4 to 7 inch.

Screws, wood, flat-head—

No. 7, $\frac{5}{8}$ to $1\frac{1}{4}$ inch.

No. 8, $\frac{3}{4}$ to $1\frac{1}{4}$ inch.

No. 10, $\frac{3}{4}$ to $1\frac{1}{2}$ inch.

No. 11, 1 to $2\frac{1}{2}$ inch.

No. 12, 1 to 3 inch.

Screws, round head, blued—

Nos. 7 and 8, $\frac{7}{8}$ inch.

No. 10, 1, $1\frac{1}{4}$, and $1\frac{1}{2}$ inch.

Rivets, blacksmith's—

$\frac{3}{16}$ by $1\frac{1}{2}$ to 3 inch.

$\frac{1}{4}$ by $1\frac{1}{2}$ to 4 inch.

Nuts, blank, $\frac{3}{8}$ to $\frac{3}{4}$ inch.

Washers, iron, $\frac{3}{16}$ to $\frac{3}{4}$ inch.

Axles.

Axle boxes.

Axle clips.

Axle caps.

Axle nuts.

Axle washers.

Brake irons.

Brake levers.

Blacksmith's materials—Continued.

Brake ratchets.
Brake rods.
Brake rollers.
Brake hangers.
Brake sockets.
Coupling pins.
Clevises,
Chains, fifth.
Chains, stay.
Chains, spreader.
Chains, feed-box.
Chains, rough-lock.
Chains, tongue.
Lap links.
Rub irons.
Springs, seat.
Springs, Dougherty wagon.
Springs, ambulance.
Staples, wagon bow.
Wheels.
Wrenches, wagon.

**231.** Each wheelwright should have the following tools:

1 ax, hand.
1 auger, hollow.
8 bits, press drill, one each $\frac{3}{16}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, and 1 inch.
1 bit, screw-driver, for brace.
1 brace, ratchet.
1 calipers.
1 chisel, cold.
8 chisels, firmer, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, 1, $1\frac{1}{2}$, and 2 inch.

Wheelwright's tools—Continued.

1 file, 12-inch, wood or bastard.
6 files, 5-inch, saw, taper.
1 set gouges, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, and 2 inch.
1 grindstone and fixtures.
1 gauge, thumb, mortise.
1 hammer, claw.
1 hammer, riveting.
1 knife, drawing.
1 oiler, hand.
3 planes, one each, smooth, jack, and jointer.
1 punch, steel.
1 rasp, wood, 12-inch.
1 rule, 2-foot.
1 saw, cross-cut, hand.
1 saw, rip, hand.
1 set saws, compass, with handles (three in set).
1 screw-driver, hand.
1 set, saw.
1 shave, spoke.
1 spoke pointer.
1 square, try.
1 square, steel, 2-foot.
1 stone, oil.
1 vise, block.
1 wrench, monkey, 10-inch.

**232.** Wheelwright's material:

Axle rests, front and rear.
Axle caps,
Bars, lead.

Wheelwright's materials—Continued.

Bars, slide.
Bars, break.
Bolsters, front, hind, and sand.
Bows.
Boxes, feed.
Boxes, tool.
Brake blocks.
Brake beams.
Castings, reach.
Covers, wagon.
Cushions, seat.
End gates.
Felloes.
Hammers, wagon.
Hangers, bed.
Hasps and staples.
Hinges, T and strap.
Hounds, front and rear.
Hubs.
Lumber, oak, poplar, and pine.
Nails, clinch, 6-penny.
Nails, wire, 6 and 8 penny.
Plates, bolster.
Reaches,
Rods, gate.
Screws, $\frac{3}{4}$ and 1 inch, No. 8, $1\frac{1}{2}$-inch, No. 10.
Seats, wagon.
Sideboards.
Spokes.
Springs, ambulance.
Tacks.

Wheelwright's materials—Continued.
Tanks, water, for ambulance.
Tank holders.
Tongues.
Trees, single.
Trees, double.

**233.** Painter's tools:
Brushes, round, 2-inch.
Brushes, flat, 1 to 2 inch.
Brushes, badger, 2-inch.
Brushes, striping, $\frac{1}{8}$ and $\frac{1}{4}$ inch.
Brushes, pencil, $\frac{1}{8}$ and $\frac{1}{4}$ inch.

**234.** Painter's materials:
Paint, black, drop, in oil.
Paint, blue, prussian, in oil.
Paint, blue, prussian, dry.
Paint, green, chrome, in oil.
Paint, red, venetian, dry.
Paint, red, vermilion, in oil.
Paint, white-lead, in oil.
Oil, linseed, boiled.
Oil, linseed, raw.
Drier, japan.
Drier, turpentine.
Varnish, coach.

**235.** Saddler's tools:
Awls, collar.
Awls, lacing.
Awls, pad and seat.
Awls, round.
Awls, thong.
Blades, awl, assorted.
Blades, draw-gauge.

Saddler's tools—Continued.

Blades, splitting-knife.
Blades, washer-cutter.
Brushes, glue, medium.
Carriages, box, for overstich wheels.
Channelers, edge.
Chisels, cold, assorted.
Compasses, patent-leather, spring.
Creasers, iron ends, to crease four widths.
Creasers, layer, octagon, Nos. 2, 3, 4, and 5.
Creasing machine, iron, with upper and lower rollers.
Cutters, washer, double.
Dividers, steel, 6-inch.
Files, flat, 6 to 10 inch.
Files, rat-tail, 7-inch.
Gauges, draw.
Hammers, riveting, No. 3.
Hammers, shoe, No. 4.
Hammers, tack, No. 3.
Handles, awl.
Horses, stitching.
Jaws, stitching-horse.
Knives, shoe.
Knives, head, $4\frac{3}{8}$-inch.
Knives, round, 6-inch.
Knives, splitting, 10-inch.
Mallets.
Nail pullers.
Needles, collar, Nos. 2 and 4.
Needles, glover's, Nos. 3, 4, and 5.
Needles, harness, Nos. 2, 3, 4, and 5.
Needles, sewing-machine.

Saddler's tools—Continued.

Nippers, heavy, 9-inch, with set screws.
Oilers, hand.
Palms, collar, round.
Pinchers, 9-inch.
Pliers, steel, 5-inch.
Pliers, pincher, 7-inch.
Pliers, side-cutting, 7-inch.
Punches, bag, ½, ⅝, ¾, ⅞, and 1 inch.
Punches, round, Nos. 2, 4, 6, 8, and 9.
Punches, prick, steel, small.
Punches, revolving, six tubes.
Rules, 3-foot.
Rounders, rein, nine holes.
Saws, hand.
Screw-drivers, 6 and 10 inch.
Sets, rivet, Nos. 8 and 12, two holes.
Sewing machine, suitable for sewing heavy duck.
Shears, straight, 9-inch.
Slickers, glass.
Stamps, saddle, assorted.
Sticks, loop, iron, oval edge, ½, ⅝, ¾, ⅞, 1, 1¼, 1½, 1¾, and 2 inch.
Stones, oil.
Stones, grind, weight 40 pounds.
Stuffer, or seats steel.
Ticklers, single, Nos. 2, 3, and 4.
Ticklers, double, Nos. 1, 2, and 3.
Tools, claw, heavy riveted.
Tools, edge, common, Nos. 2, 3, 4, and 5.
Thimbles, assorted.
Vises, parallel, 4-inch.
Wheels, overstitch, assorted, 5, 6, 7, and 8 to inch.

**236.** Saddler shop fixtures:

Benches, 38 inches high, 30 inches wide, 96 inches long.
Bench boards, 1 inch thick, 14 inches wide.
Barrels, halves, for cleaning harness.
Buckets, G. I.
Faucets for barrels.
Pans for greasing harness.
Stoves, heating.

**237.** Materials and spare parts of harness:

Bands, belly, ambulance, 1½-inch.
Bands, belly, wagon, 2-inch.
Bits, wagon bridle.
Bits, port.
Buckles, roller, japanned, No. 50 or 72, ⅝, ¾, ⅞, 1, 1¼, 1½, 1¾, and 2 inch.
Buckles, trace, barrel shape, japanned, 1¾-inch.
Buckles, center bar, brass, ⅝, ¾, and ⅞ inch.
Buttons, japanned, for ambulance cushions.
Chains, breast.
Chains, trace.
Chains, halter.
Chains, neck strap.
Cinchas.
Clips, hame.
Collars, H. & M., 18, 19, and 20 inch.
Duck, white, 12-ounce, 30, 36, and 42 inch.
Duck, white, 16-ounce, 60-inch.
Ink, edge.

Materials, harness—Continued.

Harness dressing.
Hames, stage, high top, 19, 20, and 21 inch.
Hames, hook, high top, 19, 20, and 21 inch.
Knobs, carriage, japanned, No. 6.
Lampblack.
Leather, bag or cushion, russet, average weight 10 pounds per side.
Leather, bridle, average weight 16 pounds per side.
Leather, enameled, red, average 10 square feet per side.
Leather, enameled, black, average 10 square feet per side.
Leather, lace, average 10 square feet per side.
Leather, harness, average weight 20 pounds per side.
Leather, skirting, average weight 20 pounds per side.
Leather, trace, average weight 23 pounds per side.
Lines, lead, width 1 inch.
Lines, wheel, width 1 inch.
Loops, halter, japanned, 1¼-inch.
Moss, black.
Open links, 10–2 (ten links to foot, No. 2 iron).
Oil, neat's-foot.
Oil, machine.
Ornaments, brass, "U. S.," ¾ and 1 inch.

Materials, harness—Continued.

Pads, collar, pressed, No. 3, sole leather.
Reins, bridle, 1-inch.
Rings, breeching, japanned, No. 1 iron, ¾, 2, and 2½ inch.
Rings, halter and breeching, japanned, No. 2, 1¾, 2, and 2½ inch.
Rings, breeching, japanned, No. 3 iron, 3½, 4, and 4½ inch.
Rings, D, japanned, 1½ inch.
Rings, open, 2-inch.
Rings, line, 1¾-inch.
Rivets, hame, 1-inch.
Rivets and burs, copper, No. 8, ½, ⅝, ¾, and ⅞ inch.
Rivets and burs, copper, No. 12, ¼, ⅜, ½, and ⅝ inch.
Rosettes, "U. S.," 1¾-inch.
Screw eyes, screw 1 inch, eye ⅜ by ⅜ inch.
Screws, brass, ¾ inch, No. 9.
Slides, breast, japanned, 1½-inch.
Snaps, harness, ⅞, 1, 1¼, and 1½ inch.
Soap, harness.
Sponge, coarse.
Squares, halter, japanned, 1½ by 1¼ inch.
Staples, hame.
Stirrups, willow, 4-inch.
Straps, choke, 2-inch.
Straps, breast, 1½-inch.
Straps, hame, top and bottom, width ⅞ inch.
Straps, halter, 1¼-inch.
Straps, stirrup, 1¼-inch.

Materials, harness—Continued.

Strings, hame, top and bottom.
Tacks, gimp, 4-ounce.
Tacks, cut, 4, 8, and 12 ounce.
Thread, shoe, Barbour's, Nos. 3 and 10, white.
Thread, saddler's, Barbour's, No. 3, black and yellow.
Thread, linen, No. 35, white and orange.
Toggles, trace, Concord, japanned.
Wax, bees.
Wax, black (spring, summer, and winter).

### DIMENSIONS AND CAPACITIES OF STANDARD RAILROAD CARS.

**238.** The following are the dimensions or capacities of the standard railroad cars:

Pullman palace car, 12 sections and a drawing-room.

Tourist sleeping car, 10 sections and a drawing-room.

Freight car (box)—length, 34 to 36 feet; capacity, 40,000 to 60,000 pounds.

Flat car—length, 34 to 36 feet; width 8 feet 6 inches.

Gondola or coal car—length, 34 to 36 feet; width, 8 feet 5 inches.

Palace stock car—length, 36 to 40 feet; capacity, 16 to 20 head.

Improved stock car—length, 36 feet; capacity, 20 to 24 head.

Ordinary stock car—length, 30 to 34 feet; capacity, 16 to 20 head

The First Missouri Volunteer Infantry required the following transportation in going to Jefferson Barracks, Mo., from Camp George H. Thomas, Lytle, Ga., in September, 1898:

| Strength. | Equipment. |
|---|---|
| 44 officers | 3 Pullman sleepers. |
| 1,235 enlisted men | 412 sections in tourist sleeper, allowing 3 men to a section. |
| 17 horses | 1 palace stock car. |
| 40 mules | 2 improved stock cars. |
| 10 wagons | 1 flat and 1 box car. |
| Freight | 8 box cars. |

LOADING ANIMALS ON CARS.

**239.** Except in hot weather, pack as many animals in the car as you can, as they will ride better than if loosely packed. If an animal happens to fall down in the car it will be almost impossible for it to get up, and the probabilities are it will be trampled to death. For this reason load sick or injured animals in car by themselves, and build separate stalls for each animal, if practicable. Before loading examine car carefully to see that the floor boards are not rotten or broken, that the sides are secure, and that there are no projecting nails or splinters. The car should be clean, and the floor covered with sand, sawdust, or straw. Where cleats on the floor are not used it is advisable to have toe calks on the animals' shoes. The man in charge should be provided with a candle lantern, bucket, and a hatchet. Where the boards on sides of car are not close together, an animal is liable to get his hoof between the boards, and when other means fail to disengage it, a hatchet is useful in cutting away a part of the board. In loading animals use the railroad

platform, or the loading ramp found at railroad stations, or make a ramp, well supported and with strong sides. Lead the animals by halters and straps up the ramp and into the car, and take off the halter. The first animal should be led to one end of the car and the second to the other end, leaving the center of the car for the last animals loaded. Arrange the animals so that the alternate ones shall face in the same direction.

Do the loading quietly, and have the animals follow one another promptly, so as to avoid delay. In some cases it may be necessary to blindfold an animal before he can be led into the car. An obstinate animal can be made to enter by holding its head up, twisting its tail, and pushing it by main force into the car. Before loading see that door on farther side of car is closed and fastened, and after loading is complete fasten the second door.

Where cars contain hayracks and water troughs, see that they are in good condition, and fill racks before loading. Animals should be unloaded and exercised at least once in twenty-four hours.

They should be watered and fed twice a day.

### LOADING AMBULANCES ON CARS.

**240.** Except for short journeys, ambulances should be knocked down before loading. Secure a flat car 36 feet long by about 9 feet wide. Take the beds off the running gears by unscrewing nuts from the bolts that hold the sills of the beds to the running gears. Also take off the rear steps. Six beds can now be placed on the car by taking the first bed and placing it in one corner of the car (its length

parallel to the car), the side of the bed coming out to the stakes, or the places for stakes on side of car. Place the second bed alongside of the first, allowing it to slip back two inches on account of the sills. Arrange the other four beds behind the first pair, well closed up; then put in stout stakes and cover ambulance tops with paulins or old canvas, as a protection to the tops from sparks. It is very important that the nuts should be put back in their proper places. Secure the water tanks on ambulances, and place the running gears in a box car and number them corresponding to the ambulances, if the ambulances are of different makes.

For short journeys, take off wheels and rear steps and unyoke axles from springs. For the axles substitute a piece of hard wood, which should not be longer than the width of ambulance. Crate wheels and put inside of ambulance, bracing same, so there will be no liability of injury to sides.

### LOADING WAGONS ON CARS.

**241.** Remove the beds from the running gears and take off the rear end gates. Get a 36-foot flat car, or even a longer one. Place the first bed in one corner of the car (its length parallel to the car), so that its side will come out to the stakes or places for stakes on side of car. Take the second bed, reverse it so that the front end shall be opposite rear end of first wagon, turn it bottom up, and place it partly inside and partly outside of the first bed, the inner sides being close together. This arrangement forms a box, with closed ends, which can be filled with parts of the body and running

gear. Place the third and fourth boxes, similarly arranged, alongside of the first and second, and continue the same arrangement to the other end of the car. In this way, 12 beds can be put in first layer on car.

Arrange the second, third, and fourth layers similarly, and secure the beds by stout stakes and wire. Forty-eight beds, with parts, can thus be shipped on one flat car, the running gears being placed in a box car. Put back all nuts in proper place. Wagons that have been used should never have the bodies knocked down and loaded in box cars, because in endeavoring to take off the nuts, which are sure to be rusted, the outside braces and inside straps are twisted and the bolt ends broken off, rendering the wagons unserviceable. By loading as above described, no damage is done the bed or running gear, and the wagons are easily set up when destination is reached. It is not necessary to number the beds, running gear, etc., except when wagons of different patterns are shipped. If tunnels are on the line of road, load only three layers, or 36 wagon beds on each car.

If cars containing stock and wagons accompany the regiment and it is necessary to run the train in several sections, the cars of stock and wagons should be the first section and should be accompanied by a sufficient number of men, say one company, to unload and care for stock and wagons, so that when the rest of the regiment arrives there will be no delay in moving baggage to camp.

### TO LOAD PROPERTY IN CARS.

**242.** The general rule for loading property is to put in first such articles as will not be immediately needed on arrival at destination. The following order of loading should be followed, unless there is a special reason for departing from it:

Officers' baggage.
Enlisted men's baggage.
Ammunition.
Rations.
Hospital stores.
Tentage.

By this arrangement the articles needed first will be unloaded first. Keep the property of each organization by itself, and mark on the car the letter and regiment of the organization whose property is in the car. The cars should be assigned and marked by the quartermaster before loading. If the regiment is to be shipped in two or more sections, see that the proper baggage cars accompany each section, so that when an organization arrives in camp its baggage will be with it. A couple of men should be in each car to guard its contents.

### ARTICLES OF PROPERTY THAT ARE EXPENDABLE.

**243.** The following list of property will give a quartermaster an idea of what articles he may properly expend and drop from his return on Form No. 43, care to be taken not to expend any property unless it has been properly used up: Hounds, reaches, axles, etc., used in repairing wagons; paints, oils, varnish, etc., used in painting wagons; horseshoe

nails, horse and mule shoes; bolts, buckles, coffins, axle grease, hinges, hasps and staples, iron, steel, leather, lumber, nails, rivets, rings, soap, screws, thread, washers; handles for axes, picks, hatchets, hammers, and other tools; tent pins, tent lines.

**244** ARTICLES TO BE CARRIED IN FIELD DESK.

Army Regulations.
Quartermasters' Manual.
Telegram book.
Letter-press book and brush.
Transportation requests.
Railroad guide.
Mucilage.
Envelopes.
Rubber eraser.
Pins.
Tape.
Blank books.
Blank forms.
Important orders and decisions.
Ink, pens, penholders, and pencils.
Sealing wax.
Paper.
Ink eraser.

**245.** WEIGHTS OF WAGONS AND SPARE PARTS.

| | Pounds. |
|---|---|
| Army wagon | 1,950 |
| Escort wagon | 1,550 |
| Hospital ambulance | 1,372 to 1,490 |
| Farm wagon | 1,000 to 1,300 |
| Dougherty wagon | 1,375 |

## 246. SPARE PARTS OF ARMY WAGON.

| | Pounds. |
|---|---|
| Wheels, front | 155 |
| Wheels, rear | 185 |
| Tongue | 54 |
| Reach | 30 |
| Bolsters, front | 36 |
| Bolsters, rear | 27 |
| Hounds, front | 23 |
| Hounds, rear | 12 |
| Axle beds, front | 20 |
| Axle beds, rear | 19 |

## 247. SPARE PARTS OF ESCORT WAGON.

| | Pounds. |
|---|---|
| Wheels, front | 114 |
| Wheels, rear | 135 |
| Tongue | 35 |
| Reach | 23 |
| Bolsters, front | 37 |
| Bolsters, rear | 17 |
| Hounds, front | 15 |
| Hounds, rear | 9 |
| Axle beds, front | 10 |
| Axle beds, rear | 10 |

## 248. SPARE PARTS OF FARM WAGON.

| | Pounds. |
|---|---|
| Wheels, front | 121 |
| Wheels, rear | 150 |
| Tongue | 46 |
| Reach | 25 |
| Bolsters, front | 37 |
| Bolsters, rear | 27 |
| Hounds, front | 11 |
| Hounds, rear | 5 |
| Wood axle | 52 |
| Brake beam | 25 |

**249.** SPARE PARTS OF HOSPITAL AMBULANCE.

| | Pounds. |
|---|---|
| Wheels, front | 56 |
| Wheels, rear | 67 |
| Tongue | 28 |

**250.** SPARE PARTS OF DOUGHERTY WAGON.

| | Pounds. |
|---|---|
| Wheels, front | 68 |
| Wheels, rear | 75 |
| Tongue | 22 |

PARKING TRAINS.

**251.** When the wagons of a regimental train have been unloaded, they should be parked in one line, if practicable, dressed to the right, with an interval of 2 feet between hubs. The animals should then be unharnessed, watered, tied to picket line, and fed.

When the animals are fed from feed box fastened to wagon pole, increase the interval between hubs to 20 feet.

In a convoy, at the first sign of the presence of an enemy close up all the wagons and form a double column (column of twos) if the ground will permit. This shortens the length of original column one-half. When the attack begins, or just before it, as the judgment of the commander dictates, form a park in the form of a square or circle, animals inside and their heads close together.

Now lock and fasten the wheels together. In the case of a large train, park the first fifty, bring up the rest of the train and make additional parks, so as to contract as much as possible the space to be defended. In some cases it may be necessary to move the train to the right or left to secure proper parking grounds. Where proper grounds for forming

wagons into circles and squares can not be found, form a double column of the wagons, and turn them so that the animals will face inward, their heads close together. To unpark, back the wagons out of the park and have them take proper place in column.

To form a circle from double column, the two leading wagons halt and the other wagons move outward to the right and left and come into the circle in their proper order. Light wagons, like ambulances and spring wagons, can be used to fill up any gaps there may be in circle.

**252. AMOUNTS OF PAINTS, OILS, ETC., REQUIRED FOR NEWLY PAINTING VARIOUS VEHICLES.**

| Kind of vehicle. | Articles and amounts. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | White lead. | Venetian red. | Prussian blue. | Chrome green. | Vandyke brown. | Coach black. | Lampblack. | Putty. | Turpentine. | Linseed oil. | Japan drier. | Coach varnish. |
| | *Lbs.* | *Lbs.* | *Lbs.* | *Lbs.* | *Lbs.* | *Lbs.* | *Lbs.* | *Lbs.* | *Qts.* | *Qts.* | *Qts.* | *Qts.* |
| Army wagon | 8 | 6 | 2 | ---- | ---- | ---- | ½ | 1 | 1 | 3 | ½ | ---- |
| Escort wagon | 6 | 5 | 1½ | ---- | ---- | ---- | ½ | 1 | 1 | 3 | ½ | ---- |
| Spring wagon | 6 | ---- | 1 | ¼ | 2 | 3 | 1 | 1 | 1 | 2 | 1 | 2 |

**253. SIZE AND WEIGHT OF ROPE.**

| Diameter. | Length per pound. | Length of coil. | Average weight of coil. |
|---|---|---|---|
| | *Feet.* | *Feet.* | *Pounds.* |
| ¼-inch | 50 | 900 | 18 |
| ⅜-inch | 25 | 750 | 30 |
| ½-inch | 14 | 990 | 70 |
| ⅝-inch | 7½ | 750 | 100 |
| ¾-inch | 6 | 750 | 125 |
| ⅞-inch | 4½ | 750 | 180 |
| 1-inch | 3½ | 750 | 208 |
| 1⅛-inch | 2½ | 750 | 282 |
| 1¼-inch | 2⅓ | 750 | 322 |
| 1⅜-inch | 2 | 750 | 375 |
| 1½-inch | 1⅔ | 750 | 462 |

### RECEIPT FOR WATERPROOFING CANVAS COVERS ON HOSPITAL AMBULANCES.

**254.** Make a mixture of the following ingredients: To each gallon of raw linseed oil add 12 ounces of beeswax, 1 pound of white lead, and 12 ounces of common resin. Now boil this mixture, stirring it at the same time, and apply it while warm to the upper side of the canvas. Be sure to wet the canvas with a sponge on the under side before applying this mixture, or sizing.

### 255. WEIGHT OF ROLLED IRON PER FOOT.

| Square. | | Round. | |
|---|---|---|---|
| Size. | Weight. | Diameter. | Weight. |
| | *Pounds.* | | *Pounds.* |
| 1/16-inch | 0.013 | 1/16-inch | 0.010 |
| 1/8-inch | 0.53 | 1/8-inch | 0.041 |
| 3/16-inch | 0.118 | 3/16-inch | 0.119 |
| 1/4-inch | 0.211 | 1/4-inch | 0.165 |
| 5/16-inch | 0.475 | 5/16-inch | 0.373 |
| 3/8-inch | 0.845 | 3/8-inch | 0.663 |
| 7/16-inch | 1.320 | 7/16-inch | 1.043 |
| 1/2-inch | 1.901 | 1/2-inch | 1.493 |
| 9/16-inch | 2.588 | 9/16-inch | 2.032 |
| 1-inch | 3.380 | 1-inch | 2.654 |
| 1 1/16-inch | 4.278 | 1 1/16-inch | 3.360 |
| 1 1/8-inch | 5.280 | 1 1/8-inch | 4.172 |
| 1 3/16-inch | 6.390 | 1 3/16-inch | 5.019 |
| 1 1/4-inch | 7.604 | 1 1/4-inch | 5.972 |
| 1 5/16-inch | 8.926 | 1 5/16-inch | 7.010 |
| 1 3/8-inch | 10.325 | 1 3/8-inch | 8.128 |
| 1 7/16-inch | 11.883 | 1 7/16-inch | 9.333 |
| 2-inch | 13.520 | 2-inch | 10.616 |

### 256. SIZE OF CUT NAILS, AND NUMBER PER POUND.

| Name. | Length. | Number of nails per pound. | Name. | Length. | Number of nails per pound. |
|---|---|---|---|---|---|
| | *Inches.* | | | *Inches.* | |
| 2-penny | 1 | 716 | 10-penny | 3 | 66 |
| 3-penny, fine | 1 1/4 | 626 | 12-penny | 3 1/4 | 50 |
| 3-penny | 1 1/4 | 440 | 20-penny | 4 | 32 |
| 4-penny | 1 1/2 | 300 | 30-penny | 4 1/2 | 19 |
| 5-penny | 1 3/4 | 210 | 40-penny | 5 | 16 |
| 6-penny | 2 | 163 | 50-penny | 5 1/2 | 13 |
| 7-penny | 2 1/4 | 123 | 60-penny | 6 | 10 |
| 8-penny | 2 1/2 | 93 | | | |

ORDERS, REGULATIONS, AND CIRCULARS OF INTEREST TO QUARTERMASTERS.

**257.** When troops are assembled for field service there will be but one accountable officer in the Quartermaster's Department for each regiment, separate battalion, or squadron, and he will account for all quartermasters' supplies in the possession of the command of which he is quartermaster. (A. R., 1051.)

**258.** The Quartermaster's Department will furnish lumber for floors to all tents. The general commanding camp will at once provide ample hospital facilities by erecting barracks where there is a shortage of hospital tents. (Extract from G. O. 117, A. G. O., 1898.)

**259.** When expenditures are incurred for preparing camp grounds for troops without specific authority and allotment of funds by the War Department, a report of same will be forwarded to the Quartermaster General for approval of the Secretary of War and the necessary allotment of funds. The amounts for tent floors, temporary buildings, structural water supply, latrines, etc., should be stated separately. This report is required in addition to and separate from the regular estimate of funds.

**260.** A building will not be erected for nor occupied as a hospital until the opinion of a medical officer has been obtained in writing upon the suitableness of site and proposed arrangement. If the commanding officer dissent from this opinion he will return it to the surgeon of the post with his reasons indorsed thereon. (A. R., 1424.)

**261.** When private buildings occupied as barracks or quarters, or lands occupied as encampments, are vacated, the commanding officer and quartermaster will make an inspection of them, and the latter will report, through the prescribed channel, to the Quartermaster General their condition and any injury which has resulted to them by reason of such occupancy. (A. R., 979.)

**262.** If members of the Hospital Corps can not be obtained as drivers, the Quartermaster's Department will hire civilians for that purpose. (G. O. 178, A. G. O., 1898.)

**263.** The Quartermaster's Department will provide and issue horse and mule shoes, nails, smith's tools, and materials required for the service, except the smith's tools of the battery wagons and forges of light batteries. The horses of a troop of cavalry or light battery will be shod by its artificer. (A. R., 1068.)

**264.** Whenever it shall be necessary for troops, teams, or employees in the military service to pass on public duty over a legally constituted toll bridge, ferry, or turnpike, the officer or person in charge of the party will apply to the nearest quartermaster for a request for such passage. If he can not obtain it, he will give to the keeper of the bridge, ferry, or turnpike a certificate stating the number of persons, and whether mounted or on foot, number of loose animals, teams, and animals to each team for which toll or ferriage is due, and showing that the travel is on public duty. Accounts for such service, accompanied by the request or certificates duly receipted, will be pro-

sented to the nearest disbursing quartermaster for settlement, who, before payment, will satisfy himself that the rates charged do not exceed those authorized or paid by private individuals, and that the indebtedness was necessarily incurred for the public service. Payment may be made at the authorized or usual rates, unless more favorable terms can be obtained. (A. R., 1107.)

**265.** In the Quartermaster's Department the employment of civilians will be regulated by the chief of bureau, under the direction of the Secretary of War. Those whose services are engaged with the intention or probability of retaining them for more than three months, except mere job services, are classified as permanent employees. The civil-service rules embrace in their classification all permanent employees of the Quartermaster's Department, except workmen and laborers, and the appointment, promotion, reduction, or discharge of all classified employees can only be made in accordance with the provisions of said rules, after receipt of instructions from the Quartermaster General. In case of a vacancy occurring in a classified position, authority should at once be requested through proper channels from the Quartermaster General to employ a temporary employee, if necessary, until the vacancy can be filled permanently through the channels of the Civil Service Commission.

**266.** Eight hours constitute a day's work for all mechanics and laborers employed by or on behalf of the United States, except in cases of emergency. This rule does not extend to engineers, firemen, seamen, watchmen, messengers, teamsters, and

others, the nature of whose employment is peculiar, and whose services may be necessary at any or occasionally at all hours of the day. (A. R., 728.)

**267.** No officer or clerk of a disbursing officer shall be interested in the purchase of any soldier's certificate of pay due or any other claim against the United States. (A. R., 588.)

**268.** Officers or agents in the military service will not purchase supplies for the Government from any other person in the military service, nor contract with any such person to furnish supplies or service to the Government, nor make any Government purchase or contract in which such person shall be admitted to share or receive benefit. (A. R., 589.)

**269.** An officer in charge of public property in use or in store will endeavor by timely repairs to keep it in serviceable condition. For this purpose the necessary means will be allowed on requisition, and property in store so repaired will be issued. (A. R., 675.)

**270.** All movable public property will, if practicable, be conspicuously branded "U. S." before being used. (A. R., 676.)

**271.** For property worn out in the public service the preliminary action of a board of survey is not necessary, and the accountable officer will submit inventories thereof and ask for an inspector's action. When the action of a board of survey and an inspector are necessary, the inventory will be accompanied by a copy of the proceedings of the board. (A. R., 678.)

**272.** Causes of damage to and of loss and destruction of military property are classified as follows:

1. Unavoidable causes, being those over which the responsible officers have no control, occurring (*a*) in the ordinary course of service, or (*b*) as incident to an active campaign.

2. Avoidable causes, being those due to carelessness, willfulness, or neglect. (A. R., 681.)

**273.** Officers responsible for property will be charged for any damage to or loss or destruction of the same, and the money value deducted from their monthly pay, unless they show to the satisfaction of the Secretary of War, by their own affidavits or certificates or by one or more depositions, that the damage, loss, or destruction was occasioned by unavoidable causes, and without fault or neglect on their part. (A. R., 682.)

NOTE.—R. S. 1304 requires *affidavits* in all cases of deficiency in or damage to any article of military supplies.

**274.** If an article of public property be lost or damaged by the neglect or fault of any officer or soldier, he shall pay the value thereof, or the cost of repairs, at such rates as a board of survey may determine. (A. R., 684.)

**275.** If articles of public property are embezzled, or lost or damaged through neglect, by a civilian employee, the value or damage as ascertained (and by a board of survey, if necessary) shall be charged to him and set against any pay or money due him. (A. R., 687.)

**276.** Whenever information is received that animals or other property belonging to the military

service of the United States are unlawfully in the possession of any person not in the military service, the quartermaster or other proper officer will promptly cause proceedings to be instituted and diligently prosecuted before the civil authorities for the recovery of the property, and, if the same has been stolen, for the arrest, trial, conviction, and due punishment of the offender and his accomplices. (A. R., 688.)

**277.** Upon satisfactory information that such United States property, unlawfully in the possession of any parties, is likely to be taken away, concealed, or otherwise disposed of before the necessary proceedings can be had in the civil tribunals for its recovery, the post or detachment commander will at once cause the same to be seized, and will hold it subject to any legal proceedings that may be instituted by other parties. Persons caught in the act of stealing public property will be summarily arrested by the troops and turned over to the civil authorities for trial. (A. R., 689.)

**278.** Quartermasters, after they have failed to get possession of a lost or stolen animal by the ordinary means, may authorize the payment of a reward of not more than $25 for its recovery.

If the animal has been stolen, they may offer an additional reward of like amount for each person arrested, tried, convicted, and sentenced for the theft. (A. R. 690.)

**279.** The expenses necessarily incurred by any action under the three preceding paragraphs, with the exception of attorney's fees, will be paid by the Quartermaster's Department, upon proper vouchers

approved by the department commander. Officers will promptly report their action to department headquarters. (A. R. 691.)

**280.** All public property, whether paid for or not, must be accounted for on the proper returns. (A. R., 692.)

**281.** Vouchers for issues or expenditures of property not authorized by regulations will be accompanied by copies of the orders directing the issues or expenditures. (A. R., 695.)

**282.** An officer will have credit for an expenditure of property made in obedience to the order of his commanding officer. If the expenditure is disallowed, it will be charged to the officer who ordered it. (A. R., 696.)

**283.** Public property expended, lost, or destroyed in the military service must be accounted for by affidavit, or the certificate of a commissioned officer, or other satisfactory evidence. (A. R., 697.)

[NOTE.—In all cases of loss or damage to military supplies, the law requires depositions.—R. S., 1304.]

**284.** Public property which has been damaged, except by fair wear and tear, or is unsuitable for the service, before being submitted to an inspector for condemnation will be examined by a board of survey. By order of the commanding officer, public animals may be killed to prevent contagion or terminate suffering; clothing infected with contagious disease, and stores that have become so deteriorated as to endanger health or injure other stores, may be destroyed; but in every case of this nature a board of survey shall act, and an inventory and inspection report, signed by the accountable and commanding officers, will be prepared and forwarded.

In urgent cases the taking of proof and the preparation of written proceedings by the board may follow the destruction of the property. (A. R., 708.)

**285.** The party responsible for the property to be surveyed will, in all cases, furnish the original certificates or affidavits upon which he relies to relieve him from responsibility, and the number of duly attested copies thereof required by a board of survey to accompany its proceedings. (A. R., 711.)

**286.** Properly approved proceedings of boards of survey may be submitted as vouchers to property returns. They are not to be considered as conclusive until accepted by the Secretary of War.

Until then they are to be regarded simply as the opinions and recommendations of disinterested officers, to aid in the settlement of questions of accountability between the Government and the individuals concerned. If on examination in the proper bureau they exhibit serious errors or defects, either of investigation or of finding, they will not be accepted as sufficient vouchers, and the officer submitting them will be duly notified, that he may have opportunity to make explanations or appeal to the Secretary of War. (A. R., 718.)

**287.** The giving or taking of receipts in blank for public property is prohibited. (A. R., 670.)

**288.** ADVERTISING LESS THAN TEN DAYS IN CASES OF EMERGENCY.—The officer who is accountable for property which is to be advertised for sale, or who is authorized to invite proposals for furnishing labor or supplies, is the one on whom devolves the duty of determining whether an emergency exists warranting the designation, under Army Regulations 505 and 520, of a period of less than ten

days for the publication of the advertisement. (Orders Acting Sec. War, Mar. 15, 1900—312626 A. G. O.; Cir. 8, A. G. O., 1900.)

**289.** The appropriation acts for the Army authorize a donation of $5 and the issue of a suit of citizen's outer clothing, to cost not to exceed $10, on release from confinement, to each dishonorably discharged prisoner who has been confined under a court-martial sentence involving dishonorable discharge.

Vouchers in payment of this account will show the name, regiment, and company of the man, and be accompanied by a certificate of the prison officer giving the above information, and in addition, a reference to the court-martial order and stating the fact of confinement and date of discharge. (Compendium, 280, Q. M. D., 1898.)

[NOTE.—Use Form No. 101 for payment of donation of money.]

**290.** A reward of $30 will be paid to any civil officer having authority for the apprehension and delivery to the proper military authorities at a military station (or at some convenient point as near thereto as may be agreed upon) of any deserter from the military service, except such as can claim exemption from trial under the statute of limitations, and such officer will also be reimbursed for actual cost of tickets over the shortest usually traveled route for himself to and from such station or point and for the deserter to such station or point not to exceed $20. The reward and actual cost of tickets will be paid by the Quartermaster's Department, and will be in full satisfaction of all expenses for

arresting, keeping, and delivering the deserter. The payment will be reported to the commander of the company or detachment to which the deserter belongs. (Par. 124, A. R., amended by G. O. 160, A. G. O., 1899.)

**291.** By direction of the Secretary of War, the reward authorized to be paid for the apprehension of deserters, by paragraph 124 of the Regulations, as amended by Paragraph II of this order, will *not* be paid for the apprehension and delivery of deserters from *volunteer organizations* mustered out of service. (G. O. 160, A. G. O., 1899.)

**292.** Officers whose commands are furloughed under paragraph 1, and who are not employed in accordance with paragraphs 4 and 5, General Orders No. 130, August 29, 1898, from this office, are regarded as awaiting orders for their own convenience. Hence they are not entitled to quarters in kind, or to commutation therefor.

Commanders of furloughed regiments will not place officers or soldiers on duty during the furlough period, except for purposes specified in paragraphs 4 and 5 of the general orders above mentioned. Whenever practicable, officers and soldiers so detailed will be supplied and sheltered as prescribed in paragraph 21, General Orders No. 124, Adjutant General's Office, August 20, 1898. Officers on duty with troops are not entitled to commutation of quarters. If their troops are barracked, they will be furnished with quarters in kind by the Quartermaster's Department. In the lack of public buildings available for the purpose, the application to hire the necessary quarters will be made by the mustering

officer to the Quartermaster General. (Cir. 48, A. G. O., 1898.)

**293.** The expenses of burial of deceased officers other than transportation of the remains, which under the law is payable from the appropriation for "Army transportation," limited to $75 by paragraph 85 of the Regulations, and of enlisted men, limited to $35 by paragraph 162 of the Regulations, as amended by General Orders, No. 141, September 12, 1898, from this office, will be limited to the cost of the coffin and the reasonable and necessary expense of preparation of the remains for burial, and will not include such items as: For guarding remains, expense of services of clergyman or minister, music by band or choir, flowers, cost or hire of pall to be used with horse, tombstone, crape or gloves for pallbearers, and expense of grave site where the remains are sent home at the request of relatives. (Dec. Sec. War, April 3, 1900—302552 A. G. O.; Cir. 9, A. G. O., 1900.)

**294.** To secure greater economy and efficiency in the use of typewriting machines in the Army, a suitable record will be kept by officers accountable for such machines, showing the kind, number, and date of purchase or receipt of each machine; character of repairs made to each, with date and cost of same. date of inspection, condemnation, sale, or other disposition.

Operators of typewriting machines will be instructed as to the proper management and care of machines, and will be required to keep them perfectly clean and free from dust, properly adjusted, with as light carriage and key tension as is consistent

with proper work, and use only a small quantity of the best oil.

In every requisition for the repair of a typewriting machine the repairs needed will be definitely stated by the officer under whose direction the machine is in use, with date of purchase or receipt of the machine; date, nature, and total cost of all previous repairs, and that the repairs required were not caused through lack of proper care on the part of the operator. This requisition and statement will be attached to the voucher. (Cir. 13, A. G. O., June 30, 1897.)

**295.** Hereafter when typewriters supplied to the Army by the Quartermaster's Department become unserviceable they will be submitted to a board of survey, and a copy of the proceedings of the board will be forwarded to the Quartermaster General, with a view to having the machines repaired, if practicable, or otherwise disposed of. (Orders Sec. War, July 8, 1899—250160, A. G. O.; Cir. 34, A. G. O., July 12, 1899.)

**296.** Affidavits in support of vouchers need not be taken in duplicate. A certified copy is sufficient for file. (Cir. 27, A. G. O., 1897.)

**297.** Names of officers or other persons will not be printed on letter or note headings for use in any branch of the military service. (G. O. 8, 1898.)

**298.** By direction of the Secretary of War, the Quartermaster's Department is charged with the duty of policing of camps established for the muster out of troops and for the use of newly organized regiments, under such sanitary regulations as may be prescribed by the proper authority. This duty

will include the construction of latrines and disposition of their contents, as well as all garbage and waste, and the furnishing of the appliances necessary for this purpose. The Quartermaster General is authorized to employ all necessary civilian labor and to purchase the required appliances and materials (except disinfectants, which the Medical Department will supply) to carry out these instructions.

Existing regulations fixing the location of latrines are hereby modified so as to provide that they shall be located by commanding officers as far removed from the vicinity of kitchens as necessary. (G. O. 124, A. G. O., July 8, 1899.)

**299.** By direction of the Secretary of War, the following description of a system adopted for the disposal of excreta in military camps is published for the information of all concerned:

*Description of Trough.*—Of the following dimensions: Length, 14 feet; width at top, 22 inches; depth at upper end, 15 inches; depth at lower end, 18 inches, and parabolic in cross section. Material consists of sheets of galvanized iron, No. 22, well riveted and smoothly soldered at joints and end. The front and rear sides of the trough are given additional strength by means of an iron rod $\frac{1}{4}$ inch in diameter, over which the edges are turned. The general shape of the trough is such as to present a curved surface throughout, thus avoiding corners in which material could collect, and to insure easy emptying and cleaning of the trough. This trough is supported by a framework consisting of four pieces so cut out as to accurately fit the surface of the trough. The four frames are placed one at

either end of the trough and the other two equally spaced. These frames are joined at the rear of the trough by two pieces 1 by 4 inches, one of these at the bottom and the other at the top of the frame, the strips running the full length of the trough. In front the trough is completely boarded in by 1-inch material. The lid consists of two sections, each 7 feet long, and each containing three and one-half openings, thus providing seven openings for the trough. This lid is made of $1\frac{1}{8}$-inch material, the several pieces of the lid being held together, front and rear, by a batten 1 by $1\frac{1}{4}$ inches wide. Each section of the lid is provided with four strap hinges screwed at the rear. The ends of the trough are boxed in and give support to a board 1 by 12 inches, rising to a height of $23\frac{1}{2}$ inches in front above the lid of the trough. The upper edge of this board is cut sloping 3 inches. These end boards give support to another board 14 feet 4 inches long by 12 inches wide, and is intended to prevent men from standing upon the lid. This board should also be braced from the roof of the latrine.

It will thus be seen that the trough is inclosed by a complete framework which is intended to secure support while in use and safety during transportation, should the latter become necessary. When placed in position, the height of the upper end of the trough above the floor, including lid, should be $20\frac{1}{2}$ inches. The rear margin of the trough should be at least 4 inches from the studding of the rear wall of the building, so as to permit the raising of each section of the lid.

The lid of the trough is divided into seven spaces, each 1 foot 11½ inches in breadth by 1 foot 10 inches in depth, the sides of the spaces being indicated by a vertical board 4 inches in height and beveled at each end. Each space is provided with an opening so shaped as to prevent, as much as possible, the soiling of its edges by fecal matter. This opening, 4 by 3 inches in front, expands to a width of 8 by 8 inches, this part having its edges well beveled, and is then extended backward to the rear of the trough and cut away as much as possible without weakening too much the strength of the lid. In other words, both the front and the rear of the ordinary water-closet seat is largely cut away. This is intended to avoid both wetting the front of the seat with urine and its rear edges with precipitate diarrhœal discharges.

2. *Description of Urinal.*—This consists of a galvanized iron trough fastened to the end and rear walls of the latrine at a height of 2 feet 6 inches from the floor. It measures 8 feet in length by 8 inches in width, and has a depth of 4 inches. Its rear side is extended 18 inches upward, so as to protect the wall of the latrine from any possible contamination with urine. It has a fall of 5 inches, and empties into the upper end of the large trough by means of a pipe 2 inches in diameter.

When ready for use water should be poured into the larger trough until it has a depth of at least 2 inches at the upper end. To this is then added ⅛ barrel of lime and the two well mixed with a wooden paddle. Lime should also be freely sprinkled in the urinal. By this means not only

do the excreta immediately fall into a disinfectant solution, but the urine is also mixed with lime prior to falling in the trough. To better provide for the disinfection of the excreta, the contents of the trough should be stirred with a wooden paddle two or three times a day.

3. *Description of Latrine.*—This consists of a frame building 8 by 25 feet 10 inches inside measurements. Height of roof at rear, 6 feet 6 inches. The front wall of the building is prolonged 2 feet at either end, and is provided with a projecting hood throughout its entire length. This hood protects an opening 20 feet in length by 12 inches in width, which is intended for the ventilation and lighting of the latrine. This opening, in warm climates, should be extended along sides and rear of building, so as to insure a better circulation of air within the closet.

The lengthening of the front wall allows for a protected entrance, 2 feet in width, at each end of the building, for persons, and also for barrels containing the disinfectant.

A door 3 feet 6 inches by 2 feet 6 inches is provided at the end of the closet opposite that of the urinal, through which the hose can be introduced for the removal of the contents of the trough. Through this door, also, the trough, inclosed in its frame, can be removed whenever this becomes necessary.

The closet is properly floored and should be lighted at night by a suitable reflecting lantern.

4. *Description of Excavating Apparatus.*—This consists of (1) a strongly constructed wagon bed

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are spilled on the ground. The two lengths of hose should next be placed in position along the sides of the tank, the pump hitched to the rear axle of the wagon by the attachment provided, and the excavator wagon driven to the next trough to be emptied.

In camp or on the march this pump should be drawn at the rear of the wagon.

Three men should be assigned to each excavating apparatus.

SPECIFICATIONS OF THE MATERIAL AND LABOR REQUIRED IN THE CONSTRUCTION AND CRATING FOR SHIPMENT OF CLOSET AND URINAL TROUGHS, WITH ILLUSTRATIONS OF SAME AND OF ODORLESS EXCAVATING TANK WAGON AND PUMPS.

*Conditions.*—The work is to be executed under the direction and to the entire satisfaction of the United States officer in charge, and in conformity with his instructions.

All material will be of the best quality of its respective kind, and all labor is to be done in the most prompt, thorough, and workmanlike manner.

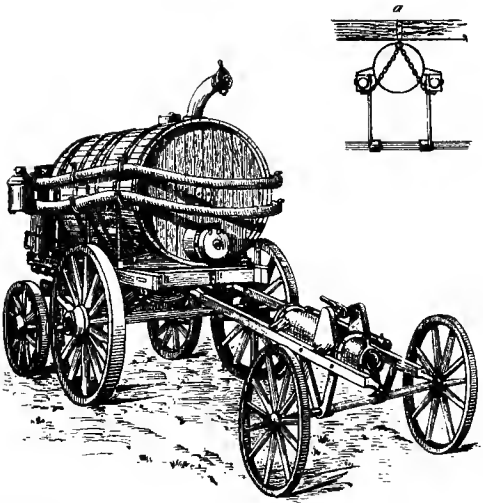
*Closet Trough.*—Closet trough to be constructed of No. 22 best bloom galvanized iron of the following dimensions: Section A–A, length, 14 feet; width at top, 22 inches; depth at upper end, 15 inches; depth at lower end, 18 inches, and parabolic in cross section. Section B–B, the upper edges of trough to be reenforced by means of an iron rod ¼ inch in diameter, over which the galvanized iron will be turned. The general shape of the trough will be such as to present a curved surface throughout, thus avoiding corners in which the material could collect, and to insure emptying and cleaning

of the trough. All joints to be thoroughly riveted and soldered smoothly.

The contractor is to furnish and properly fit the woodwork around trough in a neat, substantial manner; the frame to consist of four 2 by 4 inch ribs so cut as to accurately fit the outer curvature of trough, one to be placed at either end and the other two spaced equally between. These ribs to be tied across bottom strips 2 inches thick, and joined at the rear by two 1 by 4 inch horizontal strips, one placed at top and the other at bottom, and extending full length of trough; the front and ends to be completely covered with 1-inch dressed boards. The seat to be made in two sections, each 7 feet 1 inch in length; to be of 1⅛-inch dressed boards, cut out as shown, the several pieces of the lid being held together, front and rear, with a batten 1 by 1¼ inches wide screwed on. Each batten of the seat is to be provided with 4-inch strap hinges screwed on at rear.

*Urinal Trough.*—The urinal trough to be constructed of No. 22 best bloom galvanized iron of the following dimensions: Length, 8 feet; width, 8 inches; depth, 4 inches. The lip of trough to be reenforced by means of an iron rod ¼ inch in diameter, over which the edge will be turned. The rear side is to extend upward 18 inches. The end of trough next to closet trough is to have an opening 2 inches in diameter, cut out at bottom, and fitted with a 2-inch outlet neck about 2½ inches in length, accurately soldered in. In addition to the above, the contractor is to furnish a 2-inch diameter waste pipe, formed of galvanized iron, about 20 inches in

*Plate 1.*




*Perspective view of Odorless Excavating Tank Wagon with Pump.*
*The pump is mounted on wooden wheels which track with wagon. "a" is attached by chain to rear car.*

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length, to slip over outlet neck, with which to empty contents into closet.

*Scoop.*—Contractor to furnish with each closet trough one retinned open grocer's scoop, size 6½ by 10 inches.

*Crating.*—Each urinal trough, with waste pipe disconnected, and one scoop is to be packed in its accompanying closet trough, and the whole to be properly crated with longitudinal strips of wood in such manner as approved by the officer in charge.

SPECIFICATIONS OF THE MATERIAL AND LABOR REQUIRED IN THE CONSTRUCTION OF A TEMPORARY LATRINE.

*General Conditions.*

The work is to be executed under the direction and to the entire satisfaction of the officer in charge, and in conformity with his instructions.

Contractor to furnish all material, labor, etc., necessary to complete the work according to the true intent and meaning of the drawings and these specifications, of which intent and meaning the officer in charge shall be the interpreter, and his decision will in all cases be final.

The location of buildings will be indicated by the officer in charge, and the site will be prepared by the contractor for the reception of the structure, and should be examined by him before bidding. Contractor must lay out his own work correctly, and will be responsible for measurements.

It is intended that the drawings and specifications shall include everything required for the proper and entire finishing of the building notwithstanding every item necessarily involved by the work is not

particularly mentioned, and all work when finished is to be delivered in a perfect and undamaged state.

All timber to be of good quality yellow pine, or other good building material suitable to the locality, cost and quality considered, as determined by the officer in charge, free from shakes, large or loose knots, properly spaced and framed together.

Building to be supported on two 2 by 4 inch sills, doubled and securely spiked together; between these, running longitudinally with building, place 2 by 4 inch pieces to act as intermediate support for floor joists; all to rest firmly on suitable blocking placed under each stud, so as to give a free circulation of air under building. Floor joists to be 2 by 4 inches, spaced about 2 feet on centers, and securely nailed in place and to studs. Sides, roof, and floor of building to be covered with 1 by 10 or 12 inch undressed boards, placed horizontally on sides and on roof running with pitch of same, to be laid with close joints and securely nailed at bearings; joints on roof to be covered with 1 by 3 inch battens.

The roof in front and at ends, where shown, is to form a projecting hood protecting the opening which is intended for ventilating and lighting of the interior.

The length of the front allows for a protected entrance, 2 feet in width, at each end of the building, for persons and also for barrels containing the disinfectant.

A battened door 3 feet by 2 feet 6 inches is provided at one end of building, through which the hose can be introduced for the removal of the

contents of the trough. Through this door also the trough, inclosed in its frame, can be removed whenever this becomes necessary.

The door in end is to be hung on suitable strap hinges and provided with hook and staple. Contractor is to furnish all nails and constructional ironwork required or shown.

[NOTE.—Closet trough, seats, and urinal troughs, as shown on plans, are omitted from these specifications, and will be supplied and put in place by the Government.]

(G. O. 170, A. G. O., 1899.)

**300.** The following returns and reports will be made and disposed of by quartermasters as indicated by the notes on the forms furnished by the Quartermaster-General:

1. Report of persons and articles employed and hired to be rendered monthly, direct to the Quartermaster General, within ten days after the expiration of the month. This report will contain a complete record of all services rendered the Quartermaster's Department during the month to which it pertains.

2. Monthly report of all bills of lading and transportation requests issued, except those issued for transportation by conveyances owned or chartered by the United States.

3. Transfer list of persons and articles employed and hired.

4. Report of enlisted men employed on extra duty, rendered monthly, within ten days after the expiration of the month. A copy of the order placing an enlisted man on extra duty, or relieving him therefrom, will accompany the report for the month

during which he was so detailed or relieved. The report will also show in the column of remarks the particular duty upon which each man was employed, and whether services were rendered on other than working days.

5. Statement of outstanding debts, rendered monthly, in time to reach the chief quartermaster of the department on the last day of the month to which it pertains. (A. R., 1223.)

**301.** List of books required by the quartermaster under paragraph 1218, A. R.:

Cash book.

Letters received and index.

Press-copy book for letters sent.

Descriptive book of public animals.

Book of supplies and property received.

Press-copy book of supplies and property shipped.

Record book of interments at post.

Ordinarily the first six books are the only ones required.

[NOTE.—For information as to the Army transport service, Quartermaster's Department, see special regulations governing that service.]

### SELECTIONS FROM "TROOPS IN CAMPAIGN" THAT APPLY TO QUARTERMASTERS.

**302.** Horses and all other property, excepting arms and accoutrements, taken from deserters from "the enemy" will be turned in to the Quartermaster's Department.

**303.** Hospital tents are for the sick and wounded, and must not be diverted from their proper use.

**304.** The baggage trains belonging to headquarters and to the headquarters of army corps and

divisions will be in charge of officers of the Quartermaster's Department attached to those headquarters.

The train of each regiment will be under the control of the regimental quartermaster. When the several trains of a division, corps, or army are united, the senior officer of the Quartermaster's Department present shall have charge of the whole.

Each quartermaster, with his assistants, must be with the train. He will require it to take and keep its appropriate place in the column, and will see that his wagons do not check the march of the troops or movements of trains in his rear.

None but authorized wagons are allowed to move with the train. Those of the several headquarters, the regimental wagons, and those of traders will be conspicuously marked.

When trains are to be escorted with a view to defense, they will then become convoys, and in such cases the officer in charge of the same will be under the orders of the commander of the escort.

**305.** The depot quartermaster will provide storage for a reasonable amount of officers' surplus baggage and the extra clothing and equipage of the men.

**306.** All property, public or private, lawfully taken from the enemy, or from the inhabitants of the enemy's country, by the forces of the United States, instantly becomes the public property of the United States, and must be accounted for as such. Property captured or taken by way of requisition belongs to the United States, and can not, under any circumstances, be appropriated to individual benefit.

**307.** Officers will be held strictly responsible that all property taken from alleged enemies by them, or with their authority, is inventoried and duly accounted for. If the property taken can be claimed as private, receipts must be given to the claimants or their agents, and it must be accounted for in the same manner as public property.

**308.** It is forbidden to purchase horses without ascertaining the right of the party to sell. Stolen horses shall be restored. Estrays in the enemy's country, when the owners are not discovered, will be taken for the Army.

**309.** Neither officers nor soldiers are allowed to make usé of their positions or power in the enemy's country for private gain, even for commercial transactions otherwise legitimate. Offenses to the contrary committed by commissioned officers will be punished with cashiering or such other punishment as the nature of the offense may require; if by soldiers, they shall be punished according to the nature of the offense.

**310.** The "General," sounded one hour before the time designated for marching, is the signal to strike tents, load wagons, pack animals, and send them to the place of assembly.

**311.** A column that halts to allow another to pass resumes the march in advance of the latter's train.

If a column must pass a train, the train halts, if necessary, until the column passes. That column which has precedence must yield it if its commander, on seeing the orders of the other, finds that the interests of the service demand it.

**312.** As far as the defense permits, the commander of the escort shall refer to the officer in charge of the convoy for the hours of departure and halts, the packing, and order of the train, and the precautions to be taken against accidents.

**313.** At night in a hostile country particular attention should be paid to parking, either in circles or squares, with axles of wagons touching and tongues within the inclosure.

**314.** In case of attack, if the whole convoy can not be defended, the most valuable part may sometimes be saved by abandoning the rest. If all efforts fail, and there is no hope of succor, the convoy must be set on fire and the animals killed that can not be saved.

**315.** As soon as the transportation is provided it will be carefully inspected by the commanding officer, to see that the cars are in proper condition and sufficiently supplied with fuel and water.

**316.** In the transportation of organized commands the following regulations will be observed:

The cars will be assigned to the several companies by the commanding officer, who will cause to be marked with chalk, on the steps of each passenger car and on the side of each freight or stock car, the designation of the company or detachment to which it is assigned.

**317.** The field baggage will be loaded by details from the several companies, under the direction of the quartermaster of the detachment or command. The rations, forage, and a sufficient number of buckets to water the animals of each company will be so loaded as to be readily accessible. Artillery

carriages, army wagons, and other vehicles will be transported on platform cars, and will be lashed, if need be, to keep them in place.

**318.** On long journeys animals will be unloaded at least once in every twenty-four hours, if possible, advantage being taken of stock yards at convenient points on the route, and particular attention will be paid to grooming and feeding.

**319.** At the end of the journey the baggage will be unloaded by details from the several companies, under the direction of the quartermaster.

**320.** Military commanders charged with the embarkation of troops and officers of the Quartermaster's Department intrusted with the selection of transports will see that the vessels employed are entirely seaworthy and proper for such service, and that suitable arrangements are made in them for the health and comfort of the troops.

If in the opinion of the officer commanding the troops to be embarked the vessel is not proper or suitably arranged, the officer charged with the embarkation shall cause her to be inspected by competent and experienced persons.

**321.** In inspecting water transportation for troops the inspector must be governed by circumstances and necessities, but not to the extent of endangering life. Ordinarily, and especially in voyages of any length, vessels which would furnish reasonable comfort to passengers must be provided. If there be anything to indicate necessity for a critical inspection, the services of an expert will be employed.

The inspector will call for the written contract, if there be one, and see that its stipulations are

complied with. He will report whether the vessel is adapted to the purpose and voyage designed, or in what particular, if any, she may be defective, and whether any repairs or alterations are necessary before sailing.

The inspector will ascertain how the vessel is rated at the underwriters, the apparent age of the hull and machinery, and their existing condition. He will inquire when the vessel was last in dock, the condition of the engines and boilers, and ascertain when they were put in. He will examine whether the pumping machinery, outfit of tackle, spare spars, etc., are sufficient; whether there is an ample provision of boats, life buoys, and spare parts of machinery, and whether there is sufficient deck room for quarters for officers and enlisted men, and will see that the limit of tonnage and passengers prescribed by law is not exceeded. He will see that the vessel's crew is large enough for her proper working, and inquire into the competency of the officers. He will see that the proper instruments of navigation, compasses, etc., are provided. He will report if the chronometers have been rated, and if there is a supply of charts. The distilling apparatus, water tanks, and butts will be examined to see if there is sufficient water for passengers and crew. He will especially inspect the cooking arrangements, see that the vessel is clean, and that the portion occupied by troops is dry and well ventilated.

**322.** In loading vessels with subsistence supplies or other stores for a military expedition, the cargo of each should be composed, as far as practicable,

of a full assortment of such ammunition, supplies, and stores as may be needed by the troops upon arrival, that they may be used at once in case of necessity should other storeships be delayed or lost. Stores or supplies should be placed on board so that they may be readily reached in the order in which they may be required. Every storeship should be marked at the bow and stern and on both sides, in large characters, with a distinctive letter and number. A list of the stores on each vessel, with the place where they are to be found, should be prepared, and a copy sent to the chief officer of the proper department, whether he accompanies the expedition or is at the place for which the stores are destined.

**323.** Transports for horses should be specially prepared for the purpose. Ventilation is of primary importance, the safety and condition of the horses mainly depending upon their having plenty of fresh air. Large air ports or scuttles are indispensable, and wind sails down every hatch to each deck will be insisted upon. If time permits, fixed air shafts should be provided for each deck. The ventilation of steamers may be assisted by using the donkey engines for this purpose.

**324.** Stalls are preferable between decks; never, if it can be avoided, in the hold. Should horses be put on the spar deck, nothing will be stowed on the stall sheds. Stalls should be about 6½ feet long and 28 inches wide; tailboards fastened to the rear posts, and padded as low as the hock; breast boards and sideboards fitted in grooves about 4 feet from the floor, the first padded on the inner side and

upper edge, the latter on both sides; the floors of the stalls set on blocks, that the water may pass under them; four slats across each floor, to give the horses foothold. Troughs should be made to hang with hooks, so as to be easily removed. Before the embarkation the sideboards will be removed and replaced as each horse is put in his stall.

**325.** In embarking horses from the wharf, they are slung; or, if the height of the vessel's sides permit, they are led by ramps to the deck, and then lowered. If the transport can not lie at a wharf, the horses are brought alongside in lighters and transferred by slings. In hoisting horses on board the slings are made fast to a hook at the end of the fall, or knot is tied by an expert seaman so that it will be well secured and easily loosed. Each horse is run up quickly to prevent him from plunging, his ascent and descent being regulated by two guys attached to the halter, one held on the wharf or lighter and the other on the transport. A portable stall may also be employed, into which a horse may be led. The stall is then hoisted by a donkey engine. Horses will not be put on board after severe exercise nor unless perfectly cool.

**326.** Horses must not be overfed, and bran should form part of their diet. At the usual hour for stable duty the eyes and nostrils of each horse are wiped with a wet rag. Occasionally the nostrils will be sponged with vinegar and water and the troughs washed.

Should any contagious disease appear, the animal attacked will be promptly killed and thrown overboard, and precautions against infection taken.

**327.** After an action, the Quartermaster's Department collects all of the public property captured, except ordnance property, and makes a return of same to headquarters.

### MONTHLY ESTIMATES FOR FUNDS.

**328.** Officers serving in the Quartermaster's Department will make monthly estimates for funds, unless otherwise authorized, and only for such amounts as are required for payment of accounts within the periods estimated for. Estimates will show in detail the amounts required to cover all authorized expenditures, and the purposes for which needed. Quartermasters will submit their estimates to their immediate commanding officers, who, after action thereon, will forward them to the adjutant general of the department; he will refer them to the chief quartermaster, who, after consideration and revision, will consolidate and submit them to the department commander for approval; thereafter the chief quartermaster will forward them to the Quartermaster General. Quartermasters at general depots and independent posts will forward estimates of funds to the Quartermaster General direct.

In the preparation of estimates of funds the entries will be made in accordance with the following, which is substituted for the form published in G. O. 55, Adjutant General's Office, 1884.

*Estimate of funds required for the service of the Quartermaster's Department at ——— by ———, in the month of ———, 189—.*

| | |
|---|---|
| 1. Regular Supplies. | |
| Fuel (state the kind, quantity, and for what purposes; for officers No. —; for troops No. —; hospital fires, —; guard fires, —; workshops, etc.) | |
| Forage (state the kind, quantity, price, and for what number of animals, whether for officers, artillery, cavalry, or transportation) | |
| Straw (state quantity, price, how much for troops, for hospitals, for horses, etc.) | |
| Stationery (estimated quantities for troops; companies, number of; officers, number of; military courts, etc. Each to be stated separately) | |
| Hire of employees | |
| 2. Incidental Expenses. | |
| Expenses of expresses | |
| Pay of extra-duty men (number and for what work) | |
| Interment of officers and soldiers | |
| Office furniture (kind, quantity, and price) | |
| Hire of laborers (number, rate of pay, and on what duty employed) | |
| Hire of interpreters, spies, and guides (number of each, rate of pay, where and by whose orders employed) | |
| Hire of clerks and agents (number of each, rate of pay, where employed) | |
| Reward for apprehension and delivery of deserters, and expenses of pursuit | |
| Hire of veterinary surgeons for the Quartermaster's Department (number, rate of pay, and where employed) | |
| Horse and mule shoes and shoe nails (quantity of each, and cost) | |
| Horse medicines and veterinary instruments (for what number of animals) | |
| When other items pertaining to the appropriation for incidental expenses are required, they must be stated in detail | |
| 3. Purchase of Horses for Cavalry and Artillery. | |
| Horses for ——— company, ——— regiment cavalry, at $——— | |
| Horses for ——— company, ——— regiment artillery, at $——— | |
| 4. Army Transportation. | |
| Of troops (estimated number, movement, and cost) | |
| Of stores (estimated quantity, from and to what points, and cost) | |
| Purchase of horses (number, price, and for what service) | |
| Purchase of mules (number, price, and for what service) | |
| Hire of train masters, teamsters, etc. (number, for what service, and rate of compensation) | |
| Extra duty (pay of enlisted men driving teams, repairing means of transportation, etc.) | |
| Water supply, plumbing, etc | |
| Hire of mechanics in making and repairing wagons, ambulances, harness, etc. (number, class, and rate of compensation) | |
| Wharfage, tolls, and ferriage (amount for each) | |
| Leather, iron, and other materials for transportation service (amount of each) | |
| Purchase of wagons (number, price, and for what service required) | |
| Purchase of harness (kind, quantity, price, and for what service) | |
| Hire and charter of vessels | |
| Any other items on account of army transportation that are required, stated in detail | |

*Estimate of funds required, etc.*—Continued.

| | |
|---|---|
| 5. Barracks and Quarters. | |
| Rent of officers' quarters (state the number of officers, rank, regiment, or corps, and the rate) | |
| Rent of storehouses (number, rate, and for what purpose occupied) | |
| Rent of offices (number, rate, and by whom occupied) | |
| Construction of barracks, quarters, and storehouses (state where and by what authority erected, and for what purpose) | |
| Materials for buildings (kind and quantity, and where and for what buildings required) | |
| Repairs of public buildings at established posts (nature of repairs, and cost in detail) | |
| Hire of mechanics and laborers on buildings (number, class, compensation, and where to be employed) | |
| 6. Construction and Repair of Hospitals. | |
| Purchase of materials | |
| Extra-duty pay | |
| Construction or repairs under contract | |
| 7. Quarters for Hospital Stewards. | |
| Purchase of materials | |
| Extra-duty pay | |
| Construction or repairs under contract | |
| 8. Shooting Galleries and Ranges. | |
| Purchase of materials for construction or repairs | |
| 9. Clothing and Camp and Garrison Equipage. | |
| Purchase of materials | |
| Manufacture of clothing and equipage | |
| Hire of employees and workmen | |
| Purchase of civilian clothing for discharged military prisoners | |
| 10. Pay of Superintendents of National Cemeteries. | |
| At ——— | |
| 11. National Cemeteries. | |
| At ——— | |
| Total | |
| Deduct actual or probable balance on hand | |
| Amount required | |

Station ———.

A——— B———,
*Quartermaster.*

Date ———.

Approved:

———— ————,
*Commanding.*

## 329. LIST OF BLANKS AND BOOKS SUPPLIED BY QUARTERMASTER'S DEPARTMENT, UNITED STATES ARMY.

(See par. 1552, A. R., 1895.)

| No. | Name of the Blank Form. |
|---|---|
| 1 | Report of Persons and Articles Hired. |
| 1A | Report of Bills of Lading and Transportation Requests Issued. |
| 2 | List of Persons and Articles Transferred. |
| 3 | Roll of Enlisted Men on Extra Duty. |
| 4 | Invoice of Supplies Transferred for Transportation. |
| 5 | Receipt for Supplies Transferred for Transportation. |
| 6 | Account Current. |
| 7 | Abstract of Funds (sales to officers). |
| 8 | Abstract of Purchases (A). |
| 9 | Report of Payments on account of Purchases and Services. |
| 9½ | Report of Payments on account of Open-Market Purchases. |
| 10 | Voucher to Abstract "A"—for Purchases of Horses. |
| 11 | Abstract of Expenditures (B). |
| 12 | Voucher to Abstract "B"—Receipt Roll. |
| 13 | Voucher to Abstract B (for services). |
| 14 | Voucher to Abstract B for payment for Telegrams. |
| 15 | Voucher to Abstract B for Passenger Transportation. |
| 16 | Voucher to Abstract B for Tickets Furnished. |
| 17 | Transportation Requests (copy). |
| 18 | Voucher to Abstract B for Freight Transportation (railroad). |
| 19 | Voucher to Abstract B for Freight Transportation (water, wagon, etc.). |
| 20 | Voucher to Abstract B for Railroad Freight Transportation (land grant involved). |
| 21 | Voucher to Abstract B for Railroad Passenger Transportation (land grant involved). |
| 22 | Voucher to Abstract B for Payment of Reward for Apprehension of Deserters. |
| 23 | Voucher to Abstract B for Advertising. |
| 24 | Voucher to Abstract B for Job Printing (large and small). |
| 25 | Abstract for Transfer of Funds (C). |
| 26 | Voucher to Abstract C, Invoice of, or Receipt for Funds. |
| 27 | Quarterly Returns of Q. M. Supplies (extra sheets). |
| 28 | Estimate of Funds (extra sheets). |
| 29 | Statement of Outstanding Debts. |

| No. | Name of the Blank Form. |
|---|---|
| 30 | Receipt for Private Funds, Paid for Fuel, Forage, Straw, etc. |
| 31 | Abstract of Articles Purchased (D) and (extra sheets). |
| 32 | Report of Progress of Public Buildings, etc. |
| 33 | Abstract of Articles Received from Officers (E) (extra sheets). |
| 34 | Voucher to Abstract E, Invoice of Supplies Transferred. |
| 35 | Abstract of Articles Received from Various Sources (F) (extra sheets). |
| 36 | Abstract of Fuel, Forage, Straw, etc., Issued and Sold to Officers (G). |
| 37 | Voucher to Abstract G for Sales to Officers of Fuel, Forage, Straw, etc. |
| 38 | Voucher to Abstract G, Requisition for Fuel, Forage, Straw, etc. |
| 39 | Voucher to Abstract G, Statement of Forage and Straw Issued to and Consumed by Public Animals. |
| 40 | Abstract of Stationery Issued (H). |
| 41 | Voucher to Abstract H, Requisition for Stationery. |
| 42 | Abstract of Articles Expended, Lost, Destroyed, and Sold (I) and (extra sheets). |
| 43 | Voucher to Abstract "I," Monthly List of Q. M. Supplies Expended. |
| 44 | Voucher to Abstract I, List of Articles Lost or Destroyed. |
| 45 | Voucher to Abstract I, Account of Sales at Auction. |
| 46 | Abstract of Articles Transferred to Officers (K) (extra sheets). |
| 47 | Voucher to Abstract K, Receipt for Q. M. Supplies. |
| 48 | Voucher to Abstract K, Special Requisition. |
| 49 | Statement of Purchases by Officers—Voucher to either Abstract G or I. |
| 50 | Abstract of Horse Medicines and Dressings Issued (L). |
| 51 | Voucher to Abstract L, Requisition for Horse Medicines and Dressings. |
| 52 | Annual Inspection of Public Buildings. |
| 53 | Estimates of Clothing and Equipage. |
| 53½ | Special Requisition for Clothing and Equipage. |
| 54 | Voucher to Abstract "I," Sales of Clothing to Officers. |
| 55 | Certificate of Inventory to accompany Property Returns. |
| 56 | Voucher to Abstract I, Statement of Charges on Muster and Pay Rolls of Enlisted Men. |
| 57 | Consolidated Estimate of Clothing and Equipage. |
| 58 | Directions for Measuring Clothing (special sizes). |

| No. | Name of the Blank Form. |
|---|---|
| 59 | Voucher to Abstract "A," Purchase of Fuel, Forage, and Straw from Indians. |
| 60 | Estimate of Q. M. Supplies (extra sheets). |
| 61 | Estimate of Lamps, Lanterns, Oils, etc. |
| 62 | Request for Special Authority to Advertise. |
| 63 | Request for General Authority to Advertise. |
| 64 | Descriptive List of Public Animals Transferred. |
| 65 | List of Clothing Issued to Enlisted Men, Abstract "M." |
| 66 | Articles of Agreement (general). |
| 67 | Articles of Agreement, Clothing, Wagon, Harness, etc. |
| 68 | Articles of Agreement, Wagon Transportation. |
| 69 | Articles of Agreement, Steamboat Transportation. |
| 70 | Articles of Agreement, Charter Party, Ocean, and Lake Vessels. |
| 71 | Articles of Agreement, Charter Party, River Steamers, and Barges. |
| 72 | Articles of Agreement, Lease. |
| 73 | Abstract of Proposals. |
| 74 | General Proposals. |
| 75 | Circular Proposals. |
| 76 | Proposals for Printing, etc. |
| 77 | Oath Relating to Contract. |
| 78 | Bill of Lading, Rail, Original (extra sheets). |
| 79 | Bill of Lading, Rail, Duplicate (extra sheets). |
| 80 | Bill of Lading, Marine, Original (extra sheets). |
| 81 | Bill of Lading, Marine, Duplicate (extra sheets). |
| 82 | Bill of Lading, Wagon, Original (extra sheets). |
| 83 | Bill of Lading, Wagon, Duplicate (extra sheets). |
| 84 | Statement of Disbursements from App. for National Cemeteries. |
| 85 | Monthly Report of National Cemeteries. |
| 86 | Schedule of Clothing and Materials required for issue to enlisted men (long and short). |
| 87 | Official Telegram. |
| 95 | Estimate of Tableware and Kitchen Utensils. |
| 96 | Articles of Agreement (construction). |
| 96A | Construction Blank. |
| 96B | Construction. |
| 97 | Articles of Agreement for Printing, etc. |
| 98 | Certificate of Supplies Transferred (large and small). |
| 99 | Memorandum Receipt for Supplies Transferred. |

| No. | Name of the Blank Form. | |
|---|---|---|
| | | BONDS. |
| 100 | "A" | Official Bond—for disbursing officers, when sureties are individuals. |
| 100 | "B" | Official Bond—for disbursing officers, when surety is a corporation. |
| 100 | "C" | Contractors' Bond—(Supplies, etc.) when principal is an individual or a partnership and sureties are individuals. |
| 100 | "D" | Contractors' Bond—(Supplies, etc.) when principal is an individual or a partnership and surety is a corporation. |
| 100 | "E" | Contractors' Bond—(Supplies, etc.) when principal is a corporation and sureties are individuals. |
| 100 | "F" | Contractors' Bond—(Supplies, etc.) when both principal and surety are corporations. |
| 100 | "G" | Contractors' Bond—(Public Works) when principal is an individual or partnership and sureties are individuals. |
| 100 | "H" | Contractors' Bond—(Public Works) when principal is an individual or a partuership and surety is a corporation. |
| 100 | "I" | Contractors' Bond—(Public Works) when principal is a corporation and sureties are individuals. |
| 100 | "J" | Contractors' Bond—(Public Works) when both principal and sureties are corporations. |
| 101 | Receipt Roll of Discharged Prisoners. | |
| | | MILITIA BLANKS. |
| 88 | Return of Clothing and Equipage. | |
| 89 | Abstract of Articles Received. | |
| 90 | Requisitions for Clothing, Equipage, and Q. M. Supplies. | |
| 91 | Abstract of Articles Lost, Expended, etc. | |
| 92 | List of Articles Lost and Destroyed. | |
| 93 | List of Supplies Expended. | |
| 94 | Account of Sales at Auction. | |

BOOKS (QUARTERMASTERS').

(*Required under par. 1218, A. R., 1895.*)

Cash Book.
Letters Received and Index.
Press Copy Book for Letters Sent.
Descriptive Book of Public Animals.
Record Book of Barracks and Quarters at Post.
Record Book of Interments at Post.
Book of Supplies and Property Received.
Press Copy Book of Supplies and Property Shipped.

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BOOKS (POST, REGIMENTAL, AND COMPANY).

(*Required by pars. 209, 243, and 264, A. R. 1895.*)

Post Order Book.
Post Letters Received and Index.
Post Letters Sent and Index.
Post Council of Administration.

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Regimental Order Book.
Regimental Letters Received and Index.
Regimental Letters Sent and Index.
Regimental Fund Book (3-quire blank book).

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Company Order Book.
Company Letters Received and Index.
Company Letters Sent and Index.
Company Council (3-quire blank book).

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Requisitions for blanks and books should be made separately.

(Q. M. G. O., April 15, 1899.)

## 330. FEES FOR OATHS IN VERIFICATION OF ACCOUNTS.

[1896—Department Circular No. 167.]

TREASURY DEPARTMENT,
OFFICE OF COMPTROLLER OF THE TREASURY,
*Washington, D. C., December 8, 1896.*

*To the Auditors and Disbursing Officers:*

Below will be found a schedule of fees which Justices of the Peace and Notaries Public are authorized by the law of their respective States and Territories to charge for administering oaths.

When an account, or voucher in an account, is required by law or regulations to be verified by the oath of an officer or employee of the Government, for the cost of which oath said officer or employee is entitled to be reimbursed, the following list of fees may be allowed, and none other, except in cases where the persons claiming reimbursement shall show that a different fee is prescribed, making specific reference to the statute authorizing the same, to-wit:

| | |
|---|---|
| ALABAMA: | |
| Notary | $0.50 |
| Justice of the Peace | .25 |
| ARIZONA: | |
| Notary | .50 |
| Justice of the Peace | .60 |
| ARKANSAS: | |
| Notary | .50 |
| Justice of the Peace | .50 |
| CALIFORNIA: | |
| Notary | .50 |
| Justice of the Peace | — |
| COLORADO: | |
| Notary | .25 |
| Justice of the Peace | .25 |
| CONNECTICUT: | |
| Notary | .50 |
| Justice of the Peace | .10 |
| DAKOTA: | |
| Notary | .25 |
| Justice of the Peace | .25 |
| DELAWARE: | |
| Notary | $0.50 |
| Justice of the Peace | .25 |
| DISTRICT OF COLUMBIA: | |
| Notary | .50 |
| Justice of the Peace | — |
| FLORIDA: | |
| Notary | .50 |
| Justice of the Peace | .16 |
| GEORGIA: | |
| Notary | .50 |
| Justice of the Peace | .30 |
| IDAHO: | |
| Notary | .25 |
| Justice of the Peace | — |
| ILLINOIS: | |
| Notary | .25 |
| Justice of the Peace | .35 |
| INDIANA: | |
| Notary | .50 |
| Justice of the Peace | 35 |

| | |
|---|---|
| IOWA. | |
| Notary | $0.25 |
| Justice of the Peace | .25 |
| KANSAS: | |
| Notary | .25 |
| Justice of the Peace | .25 |
| KENTUCKY: | |
| Notary | .50 |
| Justice of the Peace | .20 |
| LOUISIANA: | |
| Notary | .75 |
| Justice of the Peace | .25 |
| MAINE: | |
| Notary | .20 |
| Justice of the Peace* | .20 |
| MARYLAND: | |
| Notary | .62½ |
| Justice of the Peace | .30 |
| MASSACHUSETTS: | |
| Notary | .25 |
| Justice of the Peace | .25 |
| MINNESOTA: | |
| Notary | .25 |
| Justice of the Peace | .15 |
| MICHIGAN: | |
| Notary | .25 |
| Justice of the Peace | .25 |
| MISSISSIPPI: | |
| Notary | .50 |
| Justice of the Peace | .25 |
| MISSOURI: | |
| Notary | .50 |
| Justice of the Peace | .20 |
| MONTANA: | |
| Notary | .50 |
| Justice of the Peace | .50 |
| NEBRASKA: | |
| Notary | .25 |
| Justice of the Peace | .25 |
| NEVADA: | |
| Notary | .55 |
| Justice of the Peace | .30 |
| NEW HAMPSHIRE. | |
| Notary | .25 |
| Justice of the Peace | .25 |
| NEW JERSEY: | |
| Notary | .32 |
| Justice of the Peace | .32 |
| NEW MEXICO: | |
| Notary | .50 |
| Justice of the Peace | — |
| NEW YORK: | |
| Notary | .25 |
| Justice of the Peace | .25 |
| NORTH CAROLINA: | |
| Notary | .50 |
| Justice of the Peace | .10 |
| NORTH DAKOTA: | |
| Notary | $0.25 |
| Justice of the Peace | .25 |
| OHIO: | |
| Notary | .40 |
| Justice of the Peace | .40 |
| OKLAHOMA: | |
| Notary | .25 |
| Justice of the Peace | .10 |
| OREGON: | |
| Notary | 1.00 |
| Justice of the Peace | .25 |
| PENNSYLVANIA: | |
| Notary | .25 |
| (Except Allegheny County, $1; city of Philadelphia, $0.37½; counties of Blair, Center, Lycoming, Montour, Snyder, Westmoreland, and Wyoming, $0.37½; York County, $0.31¼.) | |
| Justice of the Peace | .25 |
| RHODE ISLAND: | |
| Notary | .50 |
| Justice of the Peace | .50 |
| SOUTH CAROLINA: | |
| Notary | .50 |
| Justice of the Peace | .30 |
| SOUTH DAKOTA: | |
| Notary | — |
| Justice of the Peace | — |
| TENNESSEE: | |
| Notary | .50 |
| Justice of the Peace | .20 |
| TEXAS: | |
| Notary | .25 |
| Justice of the Peace | .25 |
| UTAH: | |
| Notary | .50 |
| Justice of the Peace | .25 |
| VERMONT: | |
| Notary | .25 |
| Justice of the Peace | — |
| VIRGINIA: | |
| Notary | .25 |
| Justice of the Peace | .25 |
| WASHINGTON: | |
| Notary | .50 |
| Justice of the Peace | — |
| WEST VIRGINIA: | |
| Notary | .25 |
| Justice of the Peace | .30 |
| WISCONSIN: | |
| Notary | .25 |
| Justice of the Peace | .12 |
| WYOMING: | |
| Notary | .50 |
| Justice of the Peace | .25 |

R. B. BOWLER,
*Comptroller.*

APPROVED:
J. G. CARLISLE,
*Secretary.*

**331.** FORM FOR INVITING PROPOSALS FOR TRANSPORTATION.

DEPOT QUARTERMASTER'S OFFICE,
———, ———.

Telegraphic proposals invited, to be at this office by noon of fifteenth instant, for transportation of one battery artillery from Fort Riley, Kansas, to Fort Monroe, Virginia, consisting of about five officers, sixty-five men, fifty-five horses, four guns with caissons, battery forges, and camp equipage, and will require one standard Pullman, two tourist sleepers, three Arms palace stock cars, three flat cars, and about six freight cars, all to be equipped with air brakes. The battery is to be run through, men, horses, guns, and property together, in one train. First-class rates to be stated for officers and second-class rates for men; rates for horses, guns, and freight per hundred pounds. Equipment from initial point to go through without change. Stock, flat, and freight cars to be furnished free of all charge to the United States by the road making the proposal. Standard and tourist sleepers will be provided by Pullman Company. The equipment to be at Fort Riley by noon of sixteenth instant. Bids will state routes embraced. If land-grant roads are availed of, the usual deductions will be made.

——— ———,
*Captain and Assistant Quartermaster, U. S. A.*

**332.** CIRCULAR PROPOSAL.

DEPOT QUARTERMASTER'S OFFICE,
——— ———.

Sealed proposals, in duplicate, subject to the usual conditions, will be received at this office until 10

o'clock a. m. ———, at which time and place they will be opened in the presence of bidders, for furnishing and delivering, f. o. b. cars, at ———, the following described lumber:

| | | |
|---|---|---|
| 5,000 ft. | 1¼ by 12 in. by 12 ft. | Oak, first-class, well seasoned, and dressed on both sides. |
| 3,000 ft. | 1 by 12 in. by 12 ft. | |
| 1,000 pcs. | 3½ by 2 in. by 12 ft. | |
| 1,000 pcs. | 4 by 2 in. by 14 ft. | |

Delivery to commence at once after notification of award, and to be completed in ——— days thereafter.

The Government reserves the right to reject or accept any or all bids, or any part thereof.

Proposals must be signed by the bidder, inclosed in sealed envelope addressed to the undersigned, and marked "Proposals for lumber, to be opened ———."

———— ————,

*Captain and Assistant Quartermaster, U. S. A.*

————

————— ————,

*Asst. Quartermaster, U. S. A.,*

————.

SIR: In accordance with the above advertisement, inviting proposals for lumber, and subject to all the conditions thereof, ——— propose to furnish and deliver, f. o. b. cars, at ———, the lumber below specified, at the prices set opposite each kind.

———— ————.

| Quantity. | Articles. | Description. | Dollars. | Cents. |
|---|---|---|---|---|
| | | | | |

**333.** PROPOSALS FOR FORAGE AND STRAW.

DEPOT QUARTERMASTER'S OFFICE,

———, ———.

Sealed proposals will be received at this office until 10 o'clock a. m. ———, and then opened, for supply of forage and straw required by the United States at this station.

Particulars and blank forms can be obtained on application to this office.

———— ————,

*Captain and Assistant Quartermaster, U. S. A.*

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The following information is furnished in connection with the foregoing advertisement:

1. The estimated quantities of forage and straw required at this station are as follows:

500,000 pounds of oats.
650,000 pounds of hay.
100,000 pounds of straw.

2. The foregoing are the estimated quantities that will be required, but bids may be accepted in whole or in part, and awards made accordingly; and awards made under accepted bids will provide that the quantities awarded may be increased or decreased at the option of the United States, not exceeding twenty (20) per centum thereof, should the interest of the public service demand such change; that in case of change of the quantities required, either by increase or decrease, notice of such change will be served on the successful bidder by the depot quartermaster here; and further, if the troops should be removed in whole or in part, or if this station should be abandoned before all the deliveries under accepted bids for the foregoing quantities shall have been made, the awards shall become inoperative to the extent deemed necessary by the depot quartermaster here.

OATS.

3. To be of the best merchantable quality, of the highest recognized commercial grade of the locality, free from dust, chaff, and other impurities, and to be delivered in good and suitable sacks containing about 125 pounds each. Weight of sacks to be deducted, and the sacks to become the property of the United States.

Rate per 100 pounds net to be stated.

HAY AND STRAW.

4. To be of the best merchantable quality, of the highest recognized commercial grade of the locality, free from dust and other foreign matter, and to be put up in bales, each securely bound with three wires, and containing not to exceed 250 pounds net.

Rate per 100 pounds net to be stated.

5. Deliveries of the supplies to begin ———, and in such quantities and at such times thereafter as the depot quartermaster shall designate, free on board cars, at ———.

6. Proposals are required in duplicate.

7. Proposals for any class of the supplies mentioned or for quantities less than the whole required will be entertained, but the Government reserves the right to reject or accept the whole or any part of a bid, and to make award for either kind of supplies or such proportion thereof as may be considered for the best interest of the service.

8. The supplies will be subject to the inspection and acceptance or rejection of the depot quartermaster.

9. The successful bidders shall be responsible for and pay all liabilities for labor and material in the fulfillment of any awards made to them.

10. In case of failure of the bidder to furnish and deliver the supplies awarded to him, the said bidder shall be charged with all expense resulting from such failure.

11. Bidders are invited to be present at the opening of the proposals.

Envelopes containing proposals should be marked "Proposals for forage and straw," and addressed to the undersigned.

——— ———,

*Captain and Assistant Quartermaster, U. S. A.*

**334.** CIRCULAR PROPOSAL.

DEPOT QUARTERMASTER'S OFFICE,

———, ———.

Sealed proposals, in duplicate, subject to the usual conditions, will be received at this office until 11 a. m. Friday, ———, at which time and place they will be opened in the presence of bidders, for furnishing the United States Quartermaster's Department, f. o. b. cars, at ———, with about 80

suits of serviceable clothing for issue to discharged military prisoners.

Bidders will give description of clothing they propose to offer, with stock number to designate it, and will state price per suit, which price must not exceed $10 for each suit of coat, pants, and vest.

Payment will be made by this office on the usual purchase voucher of this department.

The Government reserves the right to reject or accept any or all bids, or any parts thereof, and to increase or diminish the above number of suits of clothing, as circumstances demand.

Proposals must be signed by the bidders, inclosed in sealed envelopes addressed to the undersigned, and indorsed "Proposals for clothing, to be opened ———."

———— ————,

*Captain and Assistant Quartermaster, U. S. A.*

---

————— ————,

*Asst. Quartermaster, U. S. A.*

————.

SIR: In response to the above advertisement, ——— propose to furnish the United States Quartermaster's Department with as many suits of clothing (three pieces each) as may be required, within the next thirty days, for the sum of ——— dollars and ——— cents each.

DESCRIPTION.

**335.** GOVERNMENT SALE OF HORSES, MULES, HARNESS, ETC.

DEPOT QUARTERMASTER'S OFFICE,

———, ———.

There will be sold at public auction at ———, commencing Monday, ———, at 10 o'clock a. m., and continuing on subsequent days at 10 a. m. until sale is concluded—

1,000 mules;
500 horses;
500 farm wagons;
200 sets harness;
Tentage;
Wagon covers;
Tools;
Miscellaneous stores;
No longer needed for the public service.

All the foregoing property will be sold in the order specified above.

The Government reserves the right to suspend sale at its discretion.

Persons purchasing will be required to make immediate deposit sufficient to bind sales, and all property purchased any day must be fully paid for that evening or the property will be put up again next day. Property must be removed by purchaser on day of sale, and no forage will be furnished after the sale for animals.

Terms, cash, in Government funds.

No checks of any kind will be received.

——— ———,

*Captain and Assistant Quartermaster, U. S. A.*

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